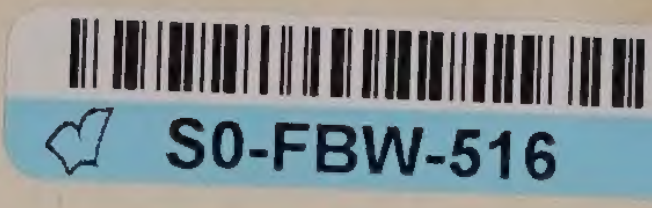
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A GUIDE TO THE NATIONAL PARKS OF AMERICA

Yellowstone National Park

Stands supreme as the World's Greatest Wonderland. Strange phenomena — geysers, pools, hot springs, multi-colored terraces, etc. Rugged mountains, canyons, lakes, streams, etc., are among the many sights which form a panorama so pleasing to the eyes of the tourist.

The Northern Pacific Railway

Is the only line to Gardiner Gateway, the original and Northern entrance to the Park. From Gardiner the entire tour—143 miles in comfortable coaches—is made with stops each night at elegant hotels or comfortable camps.

Send for descriptive literature and let us assist you in planning a vacation trip through "Wonderland."

A. M. CLELAND
General Passenger Agent
St. Paul, Minn.

A Guide to the National Parks of America

COMPILED AND EDITED BY
EDWARD FRANK ALLEN
Editor of *Travel*

WITH MAPS and ILLUSTRATIONS

ROBERT McBRIDE & COMPANY
1918

14877

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To

MY MOTHER

FOREWORD

The current admonition, "See America First," to say nothing of the paralysis of trans-oceanic travel by the European war, has awakened many good and patriotic Americans to the picturesqueness and historical interest of their own land. The slogan does not suggest, however, the extent of the America that is to be "seen"; and it is well that this is not signified by its crafty wording, for the average traveler would be disheartened at the realization that to see his country exhaustively would take the rest of his natural life and preclude his ever finding time to cross the seas.

Scenic America is represented largely in its national parks, of which there are now fifteen, aggregating an area of 9,775 square miles. (This does not include the Grand Canyon, which is technically a forest reserve, but which is nevertheless included in this book.) To visit them all is to realize the boundless possibilities of this under-exploited

country and to see America in its most typical phases.

You cannot judge a country by its cities alone—least of all the United States. New York is typical of nothing but itself; San Francisco is fast losing its individuality; New Orleans' atmosphere of the past is becoming more and more vitiated by progress. And so the national parks remain as the greatest and most individual recreation grounds that any American may visit whether he cross the water or not. They combine the lure of the outdoors, the appeal of tremendous scenic magnificence, the attractions of geological and archeological study and the observation of wild animal life, and the stimulus of being brought face to face with Nature at her best and freest. Need America ask odds of Europe when comparisons are being made?

In this compilation I have endeavored to supply all necessary information as to what each of the parks offers the tourist and the various ways of seeing these features to the best advantage. All the parks are included in this second edition, the most notable additions being Rocky Mountain, Mt. McKinley,

Hawaii, and Lassen Volcanic National Parks, which have been established comparatively recently. In subsequent editions others are likely to be added, for at this writing there are movements on foot toward making national parks of such places as Pike's Peak, Colorado, and Mount Baker, Washington, as well as the Grand Canyon of Arizona.

I wish to make acknowledgment for valuable data and maps obtained from bulletins issued by the Department of the Interior, and to express my gratitude to Messrs. Louis W. Hill, H. A. Noble, and W. R. Mills of St. Paul, Minn., to Messrs. George W. Hibbard and J. F. Bahl of Seattle, Wash., to Mr. Stanley D. Roberts of Chicago, and to Mr. Stephen T. Mather, Director of the National Park Service, for personal aid in obtaining information.

E. F. A.

New York, May, 1918.

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I

YELLOWSTONE NATIONAL PARK

THE Yellowstone is the largest and the most interesting geologically of all the national parks of America. Lest this book be open to the charge of partiality, let it be said at the beginning that it takes first place because it is the largest, and that its foremost position in geological interest is due to its geysers and hot springs. It is situated chiefly in Northwestern Wyoming, but some of it overlaps Montana and Idaho. Its area is 2,142,720 acres, or 3,348 square miles, nearly three times as large as the land and water area of the State of Rhode Island.

The tourist season in the Yellowstone lasts ɔut three months — from June 25 to Septemɔer 15 — a time of year when this region a mile or more up in the sky is at its best, and when, although there are frosts in each month

of the twelve, the climate is moderate and the flowers bloom in wondrous profusion.

How to Reach the Park

The traveler may approach Yellowstone Park from either Chicago, on the east, or Seattle, Tacoma and Portland, on the west, by the Northern Pacific Railroad, which reaches the Park at Gardiner, Mont. This station is near the northern border, being the end of a spur that leaves the main line of the railroad at Livingston, fifty-four miles to the northeast. It is only a stone's throw to the entrance of the Park from the station, and but five miles to the Mammoth Hot Springs Hotel.

From St. Louis, Kansas City, and other middle-western and southern points, the Park is reached by way of the Chicago, Burlington & Quincy Railroad. This route brings the traveler to Cody, Wyo., from which there is a drive of sixty-three miles to the eastern entrance of the Park.

The Union Pacific System reaches an entrance, Yellowstone, on the west, and provides a convenient means for travelers from Salt Lake City and other western points.

Haynes Photo, St. Paul.

Old Faithful Geyser, Yellowstone Park.

During the season round-trip tickets are ssued by the various railroads, and on special)ccasions through tickets over these lines allow topovers in the Park within the time-limit of he ticket. This is generally the case during arge conventions and expositions that draw isitors from all parts of the country.

Accommodations and Transportation — Costs

The hotels, permanent camps, and trans-ortation lines operated in the Park are all nder contract with the Department of the nterior, which insures visitors against over-harges. There is a specified schedule of rices for all ordinary requirements, and the uthorized rates are well within reason.

Tourists are advised to arrange in advance or their hotel or camp accommodations.

The Yellowstone Park Hotel Co. maintains our large and well appointed hotels in the 'ark. The hotels are located at Mammoth Hot prings, the Upper Geyser Basin, the outlet f Yellowstone Lake, and the Grand Canyon f the Yellowstone. The advent of automo-iles has caused the old Fountain Hotel to be osed and the lunch stations discontinued.

The address of the hotel company is Yellowstone Park, Wyo., from June 15 to September 15, and Helena, Mont., thereafter. The authorized rates at the hotels are as follows:

Rates of the Yellowstone Park Hotel Co.

HOTEL CHARGES.

Board and lodging, American plan, regular accommodations (not including private bath), per day, each person	$ 6.00
Board and lodging, including private bath, according to the room's location and number of occupants, $7.00 to	10.00
(It is expressly understood that where connecting rooms have access to private bath, each room is to be considered as having private bath, unless one or more of the rooms are locked off from the bathroom.)	
Meals or lodging, part of a day:	
Lodging	2.00
Breakfast	1.25
Lunch	1.25
Dinner	1.50
Meals served in rooms, extra, each	.50

The Yellowstone Park Transportation Co. operates all transportation lines in the park. Its motor-cars are comfortable and admir-

ly adopted to sight-seeing. The address of is company is Yellowstone Park, Wyo., between June 15 and September 15; thereafter, elena, Mont. The authorized rates are as llows:

Rates of Yellowstone Park Transportation Co.

PARK TOUR.

om any entrance—full park tour, and back to the same entrance, or any other entrance	$25.00
Including hotel accommodations	52.00
regular park tour cars will be routed over top of Mount Washburn, minimum of 5 passengers, each	2.00

SIDE TRIPS.

om Mammoth:	
Terraces and Buffalo Corral	$ 1.00
Gardiner and return	2.00
om Upper Basin:	
Hurry trips to Geysers	.50
Black Sand Basin	.50
Lone Star Geyser	1.50
om Thumb (minimum 5 fares):	
Snake River and return	8.00
Jacksons Lake and return	16.00
om Canyon:	
Top of Mount Washburn and return	4.00
Either side of canyon	1.00

Sulphur Mountain	2.50
From Tower Falls (minimum 5 fares):	
Buffalo Farm and return	5.00
Cooke City and return	14.00

LOCAL FARES.

Gardiner to—	
Mammoth	$ 1.00
Norris	5 00
Yellowstone	10.50
Upper Basin	11.00
Canyon (via Norris)	7.50
Mammoth to—	
Gardiner	1.00
Norris	4.00
Yellowstone	9.50
Upper Basin	10.00
Canyon (via Norris)	6.50
Yellowstone to Upper Basin	6.00
Upper Basin to—	
Yellowstone	6.00
Thumb	4.00
Lake	7.00
Canyon (via Lake)	10.50
Lake to—	
Pahaska	6.00
Pahaska and return	10.00
Cody	12.50
Cody and return	22.50
Canyon	3.50
Mammoth	11.50

ody to—

Pahaska	$ 6.50
Pahaska and return	12.50
Lake	12.50
Lake and return	22.50
Canyon	16.00

ahaska to—

Cody	6.50
Cody and return	12.50
Lake	6.00
Lake and return	10.00
Canyon	9.50
Mammoth	17.50

anyon to—

Lake	3.50
Pahaska	9.50
Cody	16.00
Yellowstone (via Norris)	8.00
Tower Falls	4.00
Mammoth	8.00
Gardiner	9.00

ower Falls to—

Mammoth	4.00
Gardiner	5.00

AUTOMOBILE LIVERY AND GARAGE SERVICE.

x-passenger touring cars, by special arrangement, when available for such service, per hour ..... $ 6.00

orage, per days ..... .50

rage charges uniform throughout the park.

SADDLE HORSES.

Per day	$ 3.50
First hour	1.00
Each subsequent hour	.50
Guide with horse, per day	5.00

Yellowstone Park Camping Co.

The Yellowstone Park Camping Co. maintains six permanent camps in the park. They are located at Mammoth Hot Springs, Riverside near the western entrance, Upper Geyser Basin, Yellowstone Lake, Grand Canyon of the Yellowstone, and Tower Falls. The address of the camping company is Yellowstone Park, Wyo., from June 15 to September 15, and Livingston, Mont., thereafter. The authorized rates at the camps are as follows:

Rates of the Yellowstone Park Camping Co.

CAMP RATES.

Five-day tours: Meals and lodging on regular five-day trip through the park (including baths, where bathhouses are completed)	$18.00
Including transportation	43.00
Meals and lodging without bath:	
Per week	21.00
Per day	3.25–4.00

Lodging per person per day:	
Old-style tent	.75
New-style tent	1.00–1.50
Breakfast	.75
Lunch	.75
Dinner	1.00
Bath, where bathhouses are completed	.50

(Children under 12 years old, one-half of above rates.)

Personally Conducted Camping Parties

The persons named below are licensed to conduct camping parties through the park. They do not furnish daily service, but make trips on certain dates or special trips as arranged. Additional information may be obtained by addressing the licensees.

Authorized rates of Howard Eaton.

[Address, Eatons' Ranch, Wolf, Wyo.]

YELLOWSTONE PARK TRIP.

Definitely planned.

August 6 to August 26 (21 days).

Party leaves Ranchester, Wyo., in special car August 5.

Trip starts from Gardiner, Mont., on Northern Pacific Railroad.

Trip ends at Cody, Wyo., on Burlington Railroad.

Fee $200, payable one-half at start of trip and balance at end.

(NOTE. Members of Glacier Park party, taking Yellowstone Park trip, leave Belton, Mont., August 3, arriving at Gardiner, August 5.)

JACKSON HOLE TRIP.

Plans conditional upon not less than 15 entries.

Definite word to be given July 31.

September 1 to September 30 (30 days).

Party leaves Ranchester, Wyo., August 31.

Trip starts from Gardiner, Mont., on Northern Pacific Railroad.

Trip ends at Gardiner, Mont., on Northern Pacific Railroad.

Fee $300, payable as follows: Deposit of $100 prior to July 31; one-half of remainder at start of trip, and balance at end.

Authorized rates of E. C. Brown and Simon Snyder.

[Address, Valley, Wyo.]

Regular 10- to 45-day trips, price for each member of party, including transportation, saddle horse, and board and lodging in camp, per day per person..... $ 8.00

Authorized rates of Joe Clause.

[Address, Yellowstone, Wyo.]

Regular 5-day trip, price for each member of party, including transportation and board and lodging in camp..... $25.00

Additional per day for stop-overs at points of

interest, for each member of party.....	2.50
Extra charge for saddle horses, per day.....	1.00

Authorized rates of W. H. Jordan.

[Address, Cody, Wyo.]

Regular 14-day trip, price for each member of party, including transportation and board and lodging in camp, per day.....	$ 5.00
Additional per day for stop-overs at points of interest for each member of party.....	5.00
Extra charge for saddle horses per day.....	1.50

Authorized rates of S. E. and E. J. Larson.

[Address, Gardiner, Mont.]

egular 6-day trip price for each member of party, including transportation and board and lodging in camp.....	$30.00
dditional per day for stop-overs at points of interest, for each member of party.....	5.00
xtra charge for saddle horses, per day.....	2.00
-day trip to Mammoth Hot Springs and Golden Gate and vicinity, per person per day	5.00

Authorized rates of H. Mullendore.

[Address, Cody, Wyo.]

egular 14-day trip price for each member of party, including transportation and board and lodging in camp, per day.....	$ 5.00

Additional per day for stop-overs at points of interest, for each member of party.....	5.00
Extra charge for saddle horses, per day.....	2.00

Authorized rates of Oscar O. Roseborough and H. P. Grant.

[Address, Gardiner, Mont.]

Regular 6-day trip, price for each member of party, including transportation and board and lodging in camp.....	$30.00
Additional per day for stop-overs at points of interest, for each member of party.....	3.00
7-day trip, via Tower Falls from Canyon, each member	35.00
3-day trip to Grand Canyon and return, from Gardiner	20.00

Authorized rates of B. D. Sheffield.

[Address, Moran, Wyo.]

Does not camp inside of the park, but takes tourists to hotels while en route to hunting lodge at Moran, Wyo., by special arrangement, paying usual hotel rates for them.

Regular trips, price for each member of party, including transportation and board and lodging at hotels (ordinary accommodations), one in party, per day.....	$15.00
For each member of party, if two in party, per day	12.50
Same, with three or more in party, per day...	10.00
Extra charge for saddle horses, per day.....	5.00

Authorized rates of Bert Stewart and John McPherson.

[Address, Gardiner, Mont.]

Regular 6-day trips, price for each member of party, including transportation and board and lodging in camp	$30.00
Additional, per day, for stop-overs at points of interest, for each member of party	5.00
To Cook City via Tower Falls Station and Soda Butte:	
Rates for team and driver to Cook City, per day	7.50
Rates for team and driver to Yellowstone, per day	7.50
Short 1-day trips from Gardiner to Mammoth Hot Springs, Golden Gate, and vicinity:	
Regular trips, one day, price for transportation, rig carrying two or three people.	8.00
For same trip, larger rig, for each passenger	2.00

Boat Service on Yellowstone Lake

The Yellowstone Park Boat Co., under contract with the Department, maintains and operates power boats and rowboats on Yellowstone Lake. The service on this lake is not a part of the regular transportation of the Park and an extra charge is made, as shown in the schedule hereafter, by the boat company for services rendered by it. Under

the regulations of the department no power boats are permitted to be operated on this lake except those that have passed the inspection of the United States Steamboat-Inspection Service of the Department of Commerce.

Rates of the Yellowstone Park Boat Co.

POWER BOATS.

Excursions to Southeast Arm of lake, per individual (this trip not made for less than $20)	$2.00
33-foot cabin cruiser, with crew, per day	35.00
For two or more days, per day	25.00
16-foot and 18-foot launches:	
Per day	15.00
For first hour	5.00
For each additional hour	2.50
Over six hours, day rates charged.	

ROWBOATS.

Per day	$2.00
Per hour	.50
Oarsmen:	
Per hour	.50
Per day	4.00

ROWBOATS EQUIPPED WITH MOTORS.

Per day	7.50

First hour	3.00
Each additional hour	1.25

Boat rental and services of oarsmen and motor boat and attendants' time commences from the moment of leaving the dock until return.

FISHING TACKLE.

Outfit, consisting of rod, reel, line and landing net, per day	.50

Same free to each individual hiring launches. Charges may be made for broken rods or lost outfit at regular price.

Flies and fishing accessories sold at regular prices, according to quality.

WHAT TO SEE

Gardiner, Mont., which is the terminus of a branch of the Northern Pacific Railroad directly north of the northern boundary of the Park, is a convenient entrance for travelers from either the east or west. The other entrances all have some distinctive characteristic, and are equally interesting. The elevation here at the log-built railway station is 5,300 feet. Facing the station is the huge rock arch erected by the Government to designate the entrance. An inscription on this monument proclaims that the Park is "For the

benefit and enjoyment of the people." The road in general use is east of the arch, near the soldier station. All camping parties are required to register at each of the soldier stations passed in their trip in the Park.

The road from Gardiner to Mammoth Hot Springs lies along the Gardiner River, a distance of five miles, ascending 800 feet.

Electric Peak (11,100 feet), the highest mountain in the Park, can be seen directly west of the railroad station at Gardiner, recognized by its sharp peak and a reddish hue. Magnetic disturbances noted by the first party who took surveying instruments to its top were the cause of its name. To the east of Electric Peak, and southwest of Gardiner, is *Sepulcher Mountain* (9,500 feet), so named from rocks on its eastern face which suggest the head and foot stones of a grave.

One mile from the railroad station you pass through *Gardiner Canyon,* a deep narrow gorge between walls of sandstone on the east and volcanic rock on the west. On the west side is Eagle Nest Rock which ospreys have used as a nesting place as long as history has any record.

At *Boiling River,* three miles farther on, a large volume of warm water from the Mammoth Hot Springs flows into Gardiner River, and presents an interesting phenomenon. The name "Boiling River" is, however, not an accurate one, for the highest recorded temperature was only 136° F., while the average is only about 124° F.

During the last mile to *Mammoth Hot Springs* (6,264 feet), the road ascends 600 feet.

Here are located *Fort Yellowstone* (where are the headquarters for the Park cavalry), the administrative headquarters of the Park, the United States commissioner's office, post-office, and stores where supplies, curios, etc., may be purchased.

There is a good camping place near the buffalo corral; no camping is permitted along Glen Creek nor in Swan Lake Basin, so the next camp site is 6 miles south of Mammoth Hot Springs on the road to Norris.

The Terraces at Mammoth Hot Springs

The calcareous deposits of the Mammoth Hot Springs cover an area of nearly 200

acres, and comprise from 10 to 12 terraces and 70 active springs.

In seeing the springs and terraces the direction here given is usually followed, although the trip may be reversed if desired. The path starts at *Liberty Cap,* an extinct hot-spring cone, now standing 40 feet above the surrounding formation. It is similar in all respects to the travertine deposits which make up the terraces and is the result of processes of erosion. At Mammoth Hot Springs the deposits from the hot water consist almost exclusively of carbonate of lime and are essentially different from those of the geyser basins, the latter being made up mainly of siliceous sinter. There are some other minerals in these waters, but it is true here as at all other points that the most of the coloring is due to a low form of vegetable life that will grow in hot water up to a temperature of 180° F.

From Liberty Cap the path runs southwest for a hundred feet and then turns to the south, ascending the first bend to *Minerva* and *Mound Terraces.* At Mound Terrace there is a side path to *Pulpit Terrace,* which

asses around Mound Terrace to the left. Two hundred feet beyond Minerva Terrace ne path climbs the next bench at a very steep ngle and continues southeast to the main *upiter Spring*, which is at present the largst spring on this formation. Being large nd safely approached on the south side, this pring gives the tourist his best point to view ne general features of these springs. The ater appears to be boiling, but in reality not quite hot enough. At many of the rings upon the broad terraces the water preents the appearance of boiling springs, when s a matter of fact the temperature is far bew the boiling point. The agitation is due to ne free escape of carbonic-acid gas at the rface. The phenomena may be observed at number of localities throughout the park. he boiling point on the terraces is on acount of the altitude, 198° F. The blue color f the water here and elsewhere in the park not a mineral color nor a reflection from ne sky, but is the natural color of clear ater in large bodies. The water escaping om Jupiter Springs rushes down the hillde to the east forming the incomparably

beautiful *Jupiter Terrace.* From Jupiter Spring the path leads in a general southwest direction past *Canary Spring,* now dry, across an amphitheater of old formation, dotted with small pine trees. At the southern end of this amphitheater the path passes around a shoulder and to the left lies *Angel Terrace. Glen Spring* which is on the right is now nearly or quite dry. The tourist passes up the next bench around Angel Terrace, keeping this terrace on his left until a shoulder of formation on the right is passed. The path then turns sharp to the right up a narrow gulch ascending the next bench. At the top of this bench at the left is the *Devils Kitchen,* which may be descended by means of the ladders as far as the tourist finds comfortable. The tourist should note that this is the only opening it is safe to descend, as at all the other caves and openings carbonic-acid gas is present to a dangerous extent. Indeed, many birds and small animals fall victims annually to the gas in these openings. A side path leads from Devils Kitchen to *Lookout Point* and the *Buttress,* two prominent points on the old inactive *Highland Terrace,* from which the view

is extensive. The main path then descends a short distance to the west to *Bath Lake,* where the bathing is very fine in the clear lukewarm water discharged into this lake from a hot spring on its southern shore. The path then runs over a slight rise to the northwest and down to *Orange Spring,* a very large prominent formation sometimes called *Orange Geyser,* although not possessing any of the characteristics of a geyser. Here the path merges with an old carriage road. Should the tourist be sufficiently interested he may follow this road in a southerly direction to *Soda Spring, Stygian Cave,* and the *White Elephant.* Otherwise the road leads northeasterly to *Narrow Gauge Terrace,* which has become active within recent years at its western end and so threatens to block the old road at this point. South of Narrow Gauge Terrace the path turns sharply to the right and runs along the *Esplanade* until it turns north and descends to a level formation, which is crossed to the *Diana Spring.* The waters flowing from this spring form the wonderful *Cleopatra Terrace.* About 500 feet from Cleopatra Terrace is a side path to *Palette*

Spring, which has recently become active again. Beyond the side path the main path descends to the level of the starting point, with *Hymen Terrace*, in some respects the most beautiful of all, on the left. It will repay the tourist to make a side trip completely around this terrace.

McCartneys Cave is an old extinct spring, the opening of which is now covered by wire netting, on the grass lawn midway between the hotel and Fort Yellowstone. *Cupids Cave*, west of Jupiter Spring, has been closed up by deposit from a hot spring and can not now be visited.

Side Trips from Mammoth Hot Springs

Around Bunsen Peak.—Twelve miles by a one-way wagon road, south from Mammoth. Passes buffalo corral, climbs side of Bunsen Peak to Middle Gardiner Canyon (second canyon in size in the Park), Sheepeater Cliffs in canyon sides, along the canyon with view of Osprey Falls (150 feet), and returning via Golden Gate and main road. Guide not necessary.

Buffalo herds (tame).—Small show herd

is kept in summer in corral 1 mile south from Mammoth Hotel, on road to Bunsen Peak. Guide not needed. Formation surreys from hotel drive to this corral. Main herd is kept at buffalo farm on Lamar River, 30 miles east from Mammoth, on stage road to Cooke. One hundred and sixty-two head of pure-blood bison under fence or herder. No accommodations nearer than Wylie Camp Roosevelt (12 miles), but plenty of good camping places and fine fishing.

Tower Falls (132 feet).—Near mouth of Tower Creek, 20 miles southeast from Mammoth, on road to Mount Washburn. Beautiful falls and mountain scenery. Guide not needed. Accommodations at Wylie Camp Roosevelt, 2 miles from Tower Falls.

Petrified stumps.—Seventeen miles by wagon road and three-fourths mile on side road southeast en route to Tower Falls. No guide needed.

Specimen Ridge and Fossil Forest.—Twenty-four miles southeast by wagon road, thence 4 miles by trail. Guide needed.

Northeastern portion of Park.—A trip could be made to include the petrified trees, Tower

Falls, main buffalo herd, Specimen Ridge and Fossil Forest, and some of the best fishing in the Park in Yellowstone River in vicinity of Tower Falls, Lamar River, and Slough Creek. Wylie permanent camp (Roosevelt) on Lost Creek, 2 miles northwest from Tower Falls (18 miles from Mammoth), provides accommodations after Mount Washburn Road is opened in the spring. Wagon road to Tower Falls, Slough Creek, and Soda Butte, but other points would have to be reached by trail, and guide and pack train would be needed. Excellent camping places in abundance on this trip.

Mountain Climbing

Electric Peak (11,100 feet).[1]—Ten miles northwest by trail; 8 miles may be done with saddle horse, balance on foot, and a portion of it is difficult and somewhat dangerous. Highest mountain in the Park. Fine view on all sides. Guide needed.

Bunsen Peak (9,100 feet).[1]—South 7 miles. Saddle horse can be ridden to top. Fine view. Guide not necessary.

[1] There is no drinking water on top of any of these mountains.

Mount Everts (7,900 feet).[1]—Northeast. Saddle horse can be ridden up from either end, over the top, and down the other end; total distance about 15 miles. No guide needed.

Fishing trips.—One-day fishing trips from Mammoth Hot Springs may be made with rig, saddle horse, or even on foot by good pedestrians, as follows: South on main road to Willow Creek, Indian Creek, Upper Gardiner and branches, and Glen Creek, for small eastern brook trout. Distance 4 to 10 miles. East to Lava Creek, 5 miles, for small native or eastern brook trout, or to Blacktail Deer Creek, 8 miles, for small native or rainbow trout. East or northeast to main Gardiner River for whitefish, native, Loch Leven, and eastern brook trout. North, 6 miles to Yellowstone River for whitefish and native trout.

Mammoth Hot Springs to Norris

Three miles from Mammoth Hot Springs, on the road to Norris (20 miles), are the *Silver Gate* and the *Hoodoos,* altitude 7,000 feet. The massive blocks of travertine,

[1] There is no drinking water on top of any of these mountains.

piled up in a most confused manner and covering several acres in the neighborhood of Silver Gate, were evidently thrown down from higher levels, probably as the result of some violent earthquake shock, accompanied by powerful lateral thrusts. One-half mile farther is *Golden Gate* (7,245 feet), where the concrete viaduct should be noted as part of the difficult engineering problems this pass presented. *Bunsen Peak* is on the left, *Terrace Mountain* on the right. At the head of Golden Gate Canyon is *Rustic Falls.*

Immediately after passing Rustic Falls (70 feet high), the road leads into *Swan Lake Basin.* The abrupt passing from the frowning walls of Golden Gate Canyon to this open, smiling mountain valley is typical of the many unexpected changes that form the scenery along the Park roads.

On the right are the many peaks of the *Gallatin Range. Electric Peak,* at the extreme north; then the long, flat summit of *Quadrant Mountain,* then *Bannock Peak, Antler Peak, The Dome, Trilobite Point,* and *Mount Holmes* on the extreme south. Mount Holmes, especially, is visible from

many points along the road. *Glen Creek*, which flows through Swan Lake Basin, has many red speckled brook trout in it. Camping is not allowed along Glen Creek or in Swan Lake Basin.

Swan Lake (7,256 feet) is near the 5-mile post, and the headquarters camp of the Wylie Permanent Camping Co. is passed just before reaching the 6-mile post. After passing the 6-mile post camping is permitted at any point over 100 feet from the road. However, as the timber commences near this point, the openings where grass can be obtained are noted on the succeeding pages as camp sites. Between 6-mile post and Apollinaris Spring, 10 miles from Mammoth Hot Springs, are many good camp sites. All the streams along the road have trout in them.

Gardiner River (7,300 feet) is crossed at the 7-mile post, and a little farther at the right of the road is the first camp of the Shaw & Powell Camping Co. Here the road enters *Willow Park* (7,300 feet), comprising the valley of *Obsidian Creek*, which is frequently crossed by the dams of beaver and dotted by their ungainly houses.

At *Apollinaris Spring* (10 miles from Mammoth Hot Springs, altitude 7,300 feet) is a landing platform on the left of the road for those tourists who wish to stop and try this water. On the opposite side of the road is a good camping place, the next camp site being 4 miles farther on the right side of the road.

Obsidian Cliff (12 miles from Mammoth Hot Springs, altitude 7,350 feet) is a cliff of hard, black volcanic glass. It is the most prominent exposure of this rock in the Park. Obsidian also occurs in the red and white forms. It was much used by Indians for arrow heads and other stone implements, this being one of the few points in the Park frequented by them before its discovery by white men. On the right at this point is *Beaver Lake*, the dam here being very long and heavy. An old beaver house can be seen near the south end of the lake.

A camp site (14 miles from Mammoth Hot Springs) is passed a mile and a half south of Beaver Lake; next camp site is just south of Bijah Spring, 3 miles farther on.

Roaring Mountain (15½ miles from Mam-

noth Hot Springs, altitude 7,550 feet) is es-ecially to be noted as a late development of hermal action. In 1902 this mountain side vas covered by a heavy growth of pine tim-er, and the only evidence of subterranean eat was a small opening among the pines 30 eet square on the extreme top of the moun-ain, in which a little steam could be seen ris-ng from the ground. In the year mentioned ctivity became greater; the formation gradu-lly spread to its present size, and it is not ertain that the limit has yet been reached.

Twin Lakes (16 miles from Mammoth Hot prings, altitude 7,513 feet) are two beauti-ul lakes, very close together, connected by a mall brook, yet they are of different color.

Bijah Spring (17 miles from Mammoth Iot Springs, altitude 7,500 feet) is alongside he road. There is a good camping place just outh of this spring; the next camp site is on he canyon road a half mile beyond Norris 3½ miles from this point).

The *Frying Pan* (18 miles from Mammoth Iot Springs, altitude 7,500 feet) is a peculiar ot spring, stewing away in a manner that arned it its name.

Norris Geyser Basin

Norris Geyser Basin (20 miles from Mammoth Hot Springs, 25 miles from Gardiner, altitude 7,470 feet).—The soldier station is at the crossing of the Gibbon River, where there is good fishing for rainbow trout. The road leading to the right in a southerly direction is the regular loop road to the Geyser Basins, while that leading to the left in an easterly direction is the loop road returning from the canyon. The geyser basin itself is a half mile south of the junction.

The path for viewing this formation starts immediately in front of the lunch station and follows the board walk in a southwest direction to the road near Black Growler. Owing to the unsafe condition of the crust through this part of the trip it is not wise to step off the walk. *Constant Geyser, Whirligig Geyser, Valentine Geyser,* and the new opening of the *Black Growler* are passed in the order named. The new opening of the Black Growler first made its appearance in August, 1912, and has steadily increased in power ever since; it is about 100 feet from the old opening and farther down the hill. This serves to illus-

rate the main characteristic of this basin, hich is its unstableness. The phenomena f this basin, with the possible exception of ne Constant and Minute Man, are constantly hanging in size, locality, character of erup- on, and nature of contents of tube. The old pening of the Black Growler is near the road nd is now inactive. Tourists now proceed outhwest along the road to the *Bathtub*, on ne left. Some seasons this is an active gey- r, playing at intervals of a few minutes, in her years it boils violently, but does not row out any water. From the Bathtub a anch path leads south past *Emerald Pool* id some small paint pots that have developed nce 1905 to the *New Crater Geyser*. This yser is a comparatively recent outbreak of well-known old vent, but unknown to those ho witnessed the first display of the so- lled New Crater. The texture and color of e most recent deposits are due mainly to lts of iron derived from ferruginous min- als in the fresh rock exposed by the open- g of the New Crater. The floor of the Nor- s Geyser Basin consists of siliceous sinter nilar in all respects to the sinter bottoms of

the other geyser basins. It is frequently covered with brilliantly tinted algous growths, which flourish luxuriantly in the warm waters. After returning to the Bathtub the path leads southwest down the hill to the platform near the *Minute Man Geyser.* Three hundred feet southeast of the Minute Man near the base of the hill is Norris's biggest geyser, the *Monarch.* Unfortunately this geyser has the varying habit, and it is almost impossible to foretell what its period between eruptions will be. During 1913 it played every hour, and further varied its custom by throwing black mud instead of clear water as it had previously done. Some seasons it has been known to play only once or twice. The path continues south to *Fearless, Palpitation, Corporal, Vixen,* and *Pearl Geysers,* all small and with such uncertain periods of eruptions that they are unsatisfactory to visit.

Congress Pool is on the left of the road south of the station, and has at times been a quiet pool, a boiling pool, a steam vent, and a mud geyser, changes occurring so rapidly that one month it may have quite different characteristics from what it had the preceding month

or what it may have the following month. The *Echinus* and *Valentine Geysers* are well worth seeing, but have seldom played during the last season or two. The *Hurricane* is now a mud vent on the right of the road south of the Congress Pool.

Norris to Lower Geyser Basin

From Norris the road leads southwest to the old Fountain Hotel. It passes through *Elk Park,* 2 miles from the junction at Norris, where there is a camp site, then runs along Gibbon River through a short canyon, interesting from the peculiar rock formation. Through *Gibbon Meadow,* 4 miles from Norris, altitude 7,315 feet, are good camping places; the next camp site is below Gibbon Falls, 5 miles farther on, but there is no forage at the Gibbon Falls camp, the first camp beyond Gibbon Meadow where there is forage being on Firehole River, 13 miles from the Gibbon Meadow.

At the south end of Gibbon Meadow a ranch road leads to the left to *Gibbon* (*or Artist*) *Paint Pots,* located on the mountain

side, 50 feet above the meadow level and a half mile from the main road.

Just after crossing Gibbon River the first time (about 4½ miles from Norris) is a trail that leads back up the river, then up the mountain for about three-fourths mile to the *Monument Geyser Basin,* which is very interesting on account of the peculiar forms of the geyser cones and because it is the highest of all the park geyser formations. It is not, however, of enough interest to the casual visitor to pay for the visit, the thermal activity being practically extinct.

The road now leads through the main *Gibbon Canyon,* for 5 miles, first on one bank of the rapidly flowing stream, then on the other. The canyon is characterized by fine views and many curiosities, but the tourist has time and inclination now only for the more prominent. *Beryl Spring* (5 miles from Norris, altitude 7,296 feet) is a fine boiling spring close to the road. *Iron Spring* (8 miles from Norris, altitude 7,100 feet) is a cold mineral spring that, like Apollinaris Spring, is usually sampled by tourists. *Gibbon Falls,* 80 feet

igh (8½ miles from Norris), is the very retty waterfall of Gibbon River on the left s the road descends. One-half mile farther s a good camping site on the left, but it has ery little, if any, forage for horses.

Ten miles from Norris a branch road to the est leads to the western entrance. At this oint the road leaves Gibbon River, climbs ne mountain to the left, and passes for nearly miles over a rolling sandy country covered v pine forests. The road then descends to *irehole River* at the *Cascades of the Fire-ole* (14½ miles from Norris) which are nly a hundred feet away but are out of sight om the road. They are, however, well orth the slight stop and effort required to ach them. Another road from the western ntrance joins the belt road at Firehole Cas-des. There is good fishing in Firehole iver for eastern brook, Loch Leven, Von ehr, native, and rainbow trout, and also hitefish.

The road now leads up Firehole River and st north of the 17-mile post from Norris is good camp site. Camp sites are now al-ost continuous for 2 miles. At the 18-mile

post a soldier station is passed; in front of this station a short road to Excelsior Geyser and Upper Geyser Basin branches out to the right. This short road, however, misses most of the Lower Geyser Basin. One-half mile from the soldier station Nez Perce Creek is crossed. This is the last camp site till Excelsior Geyser, 4½ miles farther, is reached.

Side Trips from Fountain Hotel

Great Fountain Geyser and Firehole Basin.—One and one-half miles southeast by wagon road. No guide needed.

Twin Buttes and Fairy Falls (250 *feet*).—Three miles southwest by trail. No guide necessary.

Fishing.—Good fishing in Firehole River and branches within easy distances of hotel.

Lower Geyser Basin (Fountain Hotel) to Upper Geyser Basin (Old Faithful Inn)

Lower or *Fountain Geyser Basin* (20 miles from Norris, 40 miles from Mammoth Hot Springs, and 45 miles from Gardiner, altitude 7,240 feet) is the largest of the park geyser basins, but its curiosities are too scattered to

admit of more thorough examination than can be given to the more prominent ones along the road.

After passing the hotel and crossing a flat a few hundred feet wide, the road ascends a low hill to the *Mammoth Paint Pots,* a striking example of what has been given the name "paint pots." They occur everywhere throughout the Park, but the more prominent are here and at the West Thumb.

From the unloading platform at the Mammoth Paint Pots a side path leads along the ridge through the pines to the *Fountain Geyser,* which is surrounded by a great many small geysers. The Fountain Geyser was in former years very prominent, more on account of the vast quantities of water erupted than of its height. Since 1911 the eruptions have been erratic and seldom witnessed.

The *Clepsytra, Bellefontaine, Jelly,* and *Jet* are all small geysers near the Fountain; usually one or more of them is in eruption. They are given little attention because of the greater attractions that lie before the tourist.

South of the Mammoth Paint Pots a branch road leads to the left to Firehole Lake and

other curiosities. It is usually taken by the tourist unless it is important to hurry on. The main road proceeds in a straight line in a southwest direction. The first interesting feature is *Hot Lake,* at the western end of which is a pair of constantly playing geysers, known as the *Black Warrior* or *Steady.* But the most remarkable feature here is the second lake at the extreme western end of the road, known as *Firehole Lake.* If the tourist leaves his conveyance and follows the path a hundred yards or so to the extreme western point of the lake, he will see the so-called flames. But they are to be seen from only two points, and should the wind be causing a disturbance of the water he may not see them at all. At the eastern end of this small lake is a circular opening of a deep-seated spring not unlike other vents of thermal waters. Through this vent, which usually stands full of clear, transparent water, numerous bubbles of mingled air and superheated steam rise gradually. Before reaching the surface they unite to form one large mass that in its upward passage strikingly resembles a flame of fire. This continues till the bubble

bursts, only to be followed by a repetition of the phenomenon. The explanation is that the slightly agitated water is reflected in the thin film of the ascending volume of gas. The phenomena are far better seen at Firehole Lake than elsewhere, but under favorable conditions they may be seen at other localities but in a far less striking manner. On the return, the road branches to the left, leading to the *Great Fountain Geyser,* playing every 3 to 12 hours and rightly considered as one of the sights of the Park. Even during a quiescent period the beauty of its pool and the delicate tracery of its formation are worthy of close examination.

Between Firehole Lake and the Great Fountain, *Bath Lake,* with its bathhouse, is passed; *Young Hopeful, Narcissus, Bead,* and *Pink Cone* are all small and interesting geysers.

To the west of Great Fountain a footpath a half mile in length runs past *Surprise, Diamond, Five Sisters,* and *Buffalo Springs.* All are worth visiting if one has the time.

From the Great Fountain two roads lead back to join the main road. The one running

northwest passes the imposing cone of the *White Dome.* This cone is large and interesting, but the geyser itself is too feeble to detain the tourist long.

The other road leads west, and about 200 feet from the Great Fountain is a violently boiling spring close to and at the right of the road. This is *Firehole Pool,* with phenomena similar to Firehole Lake, but it is often necessary to walk entirely around the spring to find a favorable point of view.

One hundred feet farther, at the right, is *Broken Egg Spring,* an exquisite dainty. For the next mile or two the road approaches *Twin Buttes,* a prominent landmark in the southern end of Lower Geyser Basin and west of Firehole River.

Midway Geyser Basin (3 miles from Fountain) is, properly speaking, a part of the Lower Geyser Basin, but owing to the size of its features it has often been given a separate designation. There are numerous camp sites along the river above and below Excelsior Geyser. The next camp site is at Biscuit Basin, 3 miles farther on.

The greatest attraction here is *Excelsior Geyser,* which was the largest geyser in the park, but which has not been active since 1888. The beautiful tints and colors of *Prismatic Lake* and *Turquoise Spring* make them worthy companions.

Biscuit Basin (6 miles from Fountain) is in reality the lower end of the Upper Geyser Basin. There is a good camp site here, the next being near Riverside Geyser 1½ miles farther. Fishing here, and in fact all the way from Nez Perce Creek, is good, but the constant fishing makes the fish wary.

The road forks opposite Biscuit Basin; the road on the right should be taken if Biscuit Basin is to be visited; if no stop is to be made at Biscuit Basin, either road may be taken, as they unite near Mirror Geyser.

Biscuit Basin is on the west side of Firehole River and is reached by a footbridge. *Sapphire Pool,* one minute quiet and two or three minutes later violently boiling, is the attractive feature here; the peculiar formation at its south end gives the name of "Biscuit" to this basin. A short distance west the *Jewel* and *Silver Globe* are small geysers whose

striking formation gives them their characteristic names.

Mystic Falls is on Little Firehole River some distance to the west and rather difficult to find.

A half mile after leaving Biscuit Basin, at the right and below the road, is the *Artemisia Geyser,* which has a beautiful crater and throws a tremendous volume of water when in action.

Upper Geyser Basin

A mile and a half south of Biscuit Basin, at the base of a small hill, the road branches again. The road on the right should be taken as on it is *Morning Glory Spring,* whose beautiful shape and color make it an object of universal admiration. At this point we enter that far-famed *Upper Geyser Basin,* where the largest and finest geysers of the world are gathered together in a small space only a mile north and south by a half mile or less wide.

The *Fan Geyser* is on the right between the road and the river. The *Mortar* is a few feet farther up the river. At their best these

geysers are very interesting, but unfortunately have been seldom in eruption for the last two seasons.

At the left, just above the bridge on the extreme edge of the river, is the *Riverside*, one of the prominent geysers of the basin. Its period is very regular, ranging from six to seven hours. An overflow from the lower opening presages an eruption within an hour and a half. A camp site is located on the knoll above the Riverside Geyser. Camping not being allowed in the basin, the next camp site is south of Old Faithful Geyser, nearly 2 miles by road from this point.

At the left and close to the road is the *Grotto Geyser*, differing from most in that the empty crater is more interesting than the eruption. At this point it is usual to follow the path instead of keeping to the road.

From here to Old Faithful Geyser there are two roads and a path. The road to the left is the direct road, but it does not pass any curiosities except Castle Geyser. (See description under the trip by path.) The road to the right (the Blacksand Road) is slightly longer and passes many curiosities.

The road to the right turns up the hill and passes the Wylie camp on the right. Immediately beyond the road comes close to a group of geysers and springs. Of these, the *Daisy* is a powerful little geyser that plays frequently and regularly. During the last five years it has been increasing in frequency and power. Next to it on the west is the hooded opening of the *Comet,* while over near the edge of the formation is the *Splendid.* The Comet and Splendid very seldom play. These three geysers as well as all springs in this neighborhood are connected. When one of the geysers plays it affects them all.

A quarter mile beyond the road passes a crested spring on a mound on the right. This is the *Punchbowl.* Then the *Black Sand Spring, Specimen Lake,* and the *Spouter Geysey* are passed. Near the Spouter is a footbridge to the west bank of Iron Creek. On crossing the bridge, immediately before one are the attractive *Sunset Lake* and the *Rainbow Pool,* and to the south lies *Emerald Pool,* one of the most beautiful of the Upper Basin springs. As the road leads on across a more or less level stretch it passes the *Three Sis-*

ers group of springs, and shortly afterwards oins the main road a couple of hundred yards r so north of Old Faithful Inn.

The path that leaves the road at the Grotto eyser leads first to the shattered cone of the *iant Geyser,* the greatest geyser of them all ut rather uncertain in its periods. At the ight of the Giant are the *Bijou* and *Mastiff,* wo small geysers that are playing most of the ime. On the opposite side of the river east f the Giant are three pools, normally quiet ut apparently connected with the Giant, as the urface of their water lowers each time their ig neighbor erupts. A short distance far- ier is the crater of the *Oblong Geyser,* beau- ful to look at either while quiet or in action. rossing the river on a footbridge and contin- ing, the path passes *Chromatic* and *Beauty prings* and on to the *Economic Geyser.* For any years this small and active geyser played very three minutes, using the same water ver and over again. But lately its action as been erratic and sometimes months pass ithout it being seen in action.

A quarter mile farther to the south, at the se of a rock-covered hill, is one of the finest

geysers, the *Grand,* its eruptions being smooth, strong, and powerful, as well as beautiful to behold. Immediately to the north is the *Turban Geyser,* so called because of the image of a turban seen in a detached piece of its northern rim. All the springs and geysers in this section seem to be more or less connected to the Grand, for while each geyser plays independently their water supply seems to be affected by the action of the Grand.

The *Triplets, Bulger, Chimney,* and *Teakettle* are for the most part quiet pools but sometimes violently agitated. The *Tardy* is a very powerful little geyser with such a small opening that there is a sharp whistling noise to each eruption. The *Spasmodic* is a small geyser. But the important member of this group is the *Sawmill Geyser;* here the violent whirling motion of its waters in action is due no doubt to the explosion of bubbles of superheated steam, aided, perhaps, by some peculiarity of its crater.

It is usual here to turn to the right and cross the river on the footbridge. The path then leads up the hill to the *Crested Pool,* a beautiful open spring of great depth. It

river boils, nor is it at all affected by the eruption of the near-by *Castle Geyser*. This is another powerful geyser, and is, so far as known, unconnected with any other spring or geyser. It is also peculiar in that it frequently spurts up 15 or 20 feet, just as if it might play. This spurting sometimes continues for several days and is usually an indication that the geyser will *not* play. This geyser has the highest and probably the most remarkable cone of any.

From this point the path leads to the soldier station on the river bank, where the river is crossed again to the east side on another footbridge. Immediately in front and a hundred yards from the river is a rounded hill of geyser formation with a group of four geysers on its top. These are the *Lion, Lioness,* and two cubs. The *Lioness,* which is the large open crater of boiling water, and the large cub, the smaller of the two cones, are very seldom in eruption. But the little cub, the smallest opening, plays every two hours, and the Lion, the largest of the cones, plays frequently.

To the west on the next elevation is the

Devils Ear, and a little farther on is the *Doublet,* both quiet boiling springs. Then the path turns to the south to the *Sponge Geyser,* remarkable for the color and texture of its formation and the explosiveness of its eruptions, although it only throws its water two or three feet.

Next a low mound to the south is ascended, and on it are located three open pools, sometimes quiet, sometimes boiling, and sometimes in action. The connection between all three is very close. The first pool with the raised rim is the *Teakettle;* the second, the smaller of the rimless pools, is the *Vault;* the largest pool is the crater of the *Giantess,* a large, powerful, and uncertain geyser. It is just as well not to approach the Giantess too close; she has not much consideration for the safety of her visitors, and has been known to break forth into eruption with no warning whatever from its quiet, smiling crater. When this geyser does start, the vast masses of erupted water are wonderful to behold.

Now the path turns south and then down toward the river, but the tourist should keep far enough to the south to avoid the small

penings that indicate the dangerous nature f the ground between the Giantess and the earest point of the river.

On the edge of the high bank of the river s the broken crater of the old *Cascade Geyer.* Immediately opposite on the west side f the river is the small round opening of the *Chinaman Spring.*

At this point the tourist turns a little north f west to the cone of the *Beehive,* the most rtistic and symmetrical of all.

Crossing the bridge below the Beehive and oing south to the very head of the basin the ourist arrives at *Old Faithful Geyser,* the ourists' friend. Other geysers may be more owerful, others may throw their water igher, others may have more beautiful craers, but Old Faithful has some of each of hese qualities, and, in addition, it plays often nd with regularity. It had the honor of elcoming the first explorer, and never since hat day has it failed any tourist who cared o look at it.

The head of the Upper Basin is 9 miles rom the Fountain, 29 miles from Norris, 49 iles from Mammoth Hot Springs, 54 miles

from Gardiner, and the altitude is 7,330 feet. A general store is located here near the hotel. The road leaves the basin south of the Old Faithful for the West Thumb, 19 miles away. There are camp sites south of Old Faithful for a half mile or as far as the first wagon bridge across Firehole River. The forage, however, is scarce at these sites. The next camp site is 4 miles farther, on the branch road to the *Lone Star Geyser,* which is three-quarters of a mile from the main road.

Side Trips from Old Faithful Inn

Shoshone Lake and Geyser Basin.— Four and one-half miles by road via Lone Star Geyser, thence 8 miles via trail. Union Geyser, 100 feet high; Bronze Geyser. Guide needed. Fishing for Loch Leven, lake and eastern brook trout.

Upper Geyser Basin to Thumb of Yellowstone Lake

As the road leaves Upper Geyser Basin it begins its long climb to the *Continental Divide,* first along Firehole River and then up Spring Creek Canyon. Two miles from Up-

er Basin there is a platform on the right to nable one to view the pretty *Keppler Cas-ades.*

At the junction of Firehole River and pring Creek (3½ miles from Upper Basin) ne road leaves the Firehole, but there is a ranch road to the right running three-quar-ers of a mile to the *Lone Star Geyser,* which lays for 10 minutes at intervals of 40 min-tes, height 40 to 60 feet, altitude 7,600 feet. On this branch road are good camp sites, the ext being 6½ miles farther up the main road t *De Lacy Creek.*

The first crossing of the Continental Di-ide, 8½ miles from Upper Basin, at an alti-ude of 8,240 feet, is through *Craig Pass* longside of a little lily-covered lake, *Isa ake,* whose waters in springtime hesitate hether to flow out one end into Pacific aters or out the other into Atlantic waters nd usually compromise by going in both di-ections.

Then the road turns down the narrow and rtuous *Corkscrew Hill* to a little valley at *e Lacy Creek,* hemmed in by pine-covered eights on all sides. Here is the last camp

site till Dry Creek is reached between 1½ and 2 miles farther on. Forage is scarce, and as there is not much water at the next point (2 miles from Dry Creek) it is well to be prepared to go clear on to the Thumb, 9 miles from De Lacy Creek.

Soon after leaving De Lacy Creek the road comes out on *Shoshone Point* from which *Shoshone Lake* is in plain sight and the *Teton Mountains* can be seen on a clear day. There is fine fishing in Shoshone Lake, which can be reached on horseback by following down De Lacy Creek for a distance of about 3 miles from the main road.

The road descends a little from Shoshone Point and then climbs to the *Continental Divide* again at an altitude of 8,345 feet (15½ miles from Upper Basin).

From this point it pitches rapidly down through dense timber until within 1 mile of the Thumb, when a glimpse of *Yellowstone Lake* is had. A little later *Duck Lake* is passed far below the road on the left.

As the road leads out to the lake shore the soldier station is on the left where the road forks. The road to the right leads to the

hotel company's lunch station, the boat landing, Lewis Lake, the South Boundary, and Jackson Lake. The road to the left is the main road. Tourists no longer have the option of a boat ride from this point to the Lake Hotel (16 miles), for since the installation of motor-cars in the Park, there has been little demand for it.

Side Trips from the Thumb

Jackson Hole and Lake.— Forty-eight miles (25 outside of park). Lewis Lake and Falls. Teton Mountains in Jackson Hole; Grand Teton, 13,691 feet. Fishing for native and lake trout. Wagon road.

Heart Lake and Geyser Basin.— Twelve miles south by trail. Guide needed. Fishing for lake and native trout.

The Thumb

At the Thumb the tourist should see *The Paint Pots.* They are not as large as the ones at the Fountain, but are more brilliantly colored. The *Fishing Cone* is situated on the margin of Yellowstone Lake, a quarter

mile north of the boat landing. The *Lakeshore Geyser,* which frequently plays to a height of 30 feet, is on the lake shore, 200 feet north of the boat landing.

Thumb to Lake Hotel

Should the traveler elect to follow the road from West Thumb (19 miles from Upper Basin, 28 miles from Fountain, 48 miles from Norris, 68 miles from Mammoth Hot Springs, 73 miles from Gardiner, altitude of Yellowstone Lake, 7,741 feet), he will follow the shore of Lake Yellowstone for about 5 miles. There are camp sites 2 miles from Thumb, 5 miles from Thumb, and on Bridge Creek, 11 miles from Thumb.

As the road passes around Thumb Bay fine views of *Mount Sheridan* to the south are had. Near the top of the hill is obtained a fine view of Thumb Bay on the right; a little later the *Knotted Woods* on the left are passed. The road then traverses a rolling table-land covered with dense pines. At a point 10 miles from Thumb the road crosses Bridge Creek; a half mile farther on is a camp site. *The Natural Bridge* is about 11½

miles from Thumb; it is 200 yards from the road on the left and in plain sight. There is a camp site at this point, and from here to the Yellowstone Canyon good camp sites are numerous.

At the *Lake Hotel* (16 miles from Thumb, 35 miles from Upper Basin, 44 miles from Fountain, 64 miles from Norris, 84 miles from Mammoth Hot Springs, 89 miles from Gardiner) are the boat landing and a general store selling supplies and curios. There is good fishing all along Yellowstone Lake, but especially at the outlet of the lake, 1¼ miles north. Boats and tackle may be rented at the boat landing.

Lake Hotel to Grand Canyon

Nearly 2 miles from Lake Hotel the road to East Boundary and Cody branches off to the right. Seven and one-half miles from Lake Hotel there are platforms for tourists wishing to see *Mud Volcano* and *Grotto Spring*, located 100 yards to the left of the road. There is good fishing all along the river. The road soon enters and crosses

Hayden Valley and then enters a narrow valley by side of the Yellowstone River.

Fifteen miles from Lake Hotel, and right at the head of the rapids, a branch road leads to and across the *Chittenden Bridge* to the east for 2½ miles to *Artists Point*. From this branch road there can be obtained magnificent views of the Upper Falls, the Lower Falls, and the Grand Canyon. There is a path along the rim that can be followed on foot, and a great many views seen to advantage.

The main road leads to the left. In about a half mile the platform at *Upper Falls*, 109 feet high, is reached, steps leading down to the rim of the falls. A few hundred feet farther is the soldier station and then shortly after the roads fork again. This is Canyon Junction, 16 miles from Lake, 32 miles from Thumb, 51 miles from Upper Basin, 60 miles from Fountain, 80 miles from Norris, 100 miles from Mammoth Hot Springs, 105 miles from Gardiner; altitude 7,850 feet. Camp sites are opposite the soldier station and across Chittenden Bridge. The road to the right leads to Lower Falls, to the northern

side of the Grand Canyon, the Canyon Hotel, and Mount Washburn. There is good fishing in Yellowstone River and Cascade Creek.

Grand Canyon

If the canyon is to be viewed from the northern rim, the road to the right is taken. A high, steel bridge is crossed over Cascade Creek. At the east end of the bridge a path leads to the right down the edge of the gulch to *Crystal Falls,* a lovely little falls, that is often overlooked in the presence of the larger attractions. This path can be followed to top of the Lower Falls of the Yellowstone, 308 feet high, if the tourist wants a little scramble. Another path from the end of the bridge leads to the left; this is a short cut to the Canyon Hotel. The main road winds up the hill, affording here and there glimpses of the Grand Canyon. At the top of the hill are the stairs to the *Lower Falls.* A few hundred feet farther, the branch road to the hotel and to Mount Washburn turns out to the left.

On the road about 1 mile from Canyon Junction is *Lookout Point,* reached by walking a hundred feet out to the right of the road.

Down the gulch to the right of Lookout Point is a rather steep trail leading to *Red Rock*, a fine point from which to view the Lower Falls. *Grand View* and *Castle Ruins* are other good points from which to view the canyon.

But better yet is *Inspiration Point*, at the end of this road. This point, Artists Point, Lookout Point, and the edge of the Lower Falls are the best places from which to view the wonders of the canyon. The view from each is different from the others, and each merits a careful inspection from the tourist. This canyon is some 20 miles in length, but it is only the first 3 miles below the Lower Falls that carry these wonderful colors. This is due to the fact that in times gone by fumes rising from hot springs deep in the ground have risen through the rhyolite rock of this 3-mile section until the rock has been decomposed and changed. The remainder of the canyon has not been acted on by the hot-spring fumes and hence retains its dark gray walls.

A short distance from Inspiration Point, on the east side of and close to the road, is the *Glacier Bowlder*, not by any means the

only glacial boulder in the Park, but the most striking example of this force. This boulder must have been brought a distance of at least 20 miles by the ancient glacier that carried it and dropped it here for the wonder of the tourist.

Grand Canyon to Gardiner via Norris

On the road from Canyon Junction to Norris there is a steep hill for the first mile and then the road winds through timber-covered rolling country to the *Wedded Trees,* about 5½ miles from Canyon Junction; a mile and a half farther the road enters *Virginia Meadows,* altitude 7,765 feet, where there is a camp site and the fishing is good. This is the only camping ground between Canyon Junction and Norris. At the lower end of the meadow Gibbon River is crossed and the road continues down its north bank past the Virginia Cascades to Norris Geyser Basin, 11 miles from Canyon Junction.

Norris to Gardiner

The tourist returns over the road previously described.

Grand Canyon to Mammoth Hot Springs via Mount Washburn and Tower Falls

In honor of Gen. Hiram M. Chittenden, the engineer officer to whom the excellence of the present park roads is largely due, the road from Canyon Junction to the top of Mount Washburn is known as the "Chittenden Road." It is usually not free from snow until after July 1. It leads up past the hotel and the hotel barns. Camping places are scattered all along this road, the best being *Dunraven Pass,* 7 miles from Canyon Junction, at an altitude of 8,800 feet. These are not very good, owing to lack of water, the first water to be counted on being at Tower Creek, 17 miles from Canyon Junction by Dunraven Pass Road and 20 miles by road over Mount Washburn.

At *Dunraven Pass* the road forks; the road to the left is the direct road to Tower Falls, shorter and avoiding the heavy grades of Mount Washburn, that to the right leading to the top of *Mount Washburn* (wagons can be driven to the extreme top and down the northern side). It is well to get up Mount Washburn as early in the day as possible, on ac-

count of the heavy winds that spring up later. The climb is long, but the views constantly unfurling as the tourist rises are unrivaled, and the time taken in the slow climb is put to good advantage by the sight-seer. The view from the top of Mount Washburn, altitude 10,000 feet, is equaled only by that from Electric Peak and Mount Sheridan, both of which are as yet too inaccessible to be climbed readily.

Beyond Mount Washburn the road enters an open country free from heavy timber, and so affords numberless opportunities to view the surrounding region. The grade is a steadily descending one to Tower Creek, altitude 6,400 feet. A footpath bears to the right just before reaching the steel bridge across Tower Creek and leads to *Tower Falls,* 132 feet high. The base of the falls can be reached by going down to the Yellowstone River and then up Tower Creek. The two columnar walls in the sides of the canyon across the Yellowstone should be noted. Fishing in the river at this point is good.

The next camp site is near the soldier station, 2 miles farther on. The road after

leaving Tower Creek passes first the towers, or minarets, that give this section its name; then passes close to a wonderful cliff of columnar basalt that overhangs the road. This is the famous *Overhanging Cliff*. Shortly after the *Needle* is reached. This is a long, slender spire that starts at the river's edge and mounts up nearly 300 feet.

Shortly after, the bottom of the long descent from Mount Washburn is reached, 2 miles from Tower Falls. Here a branch road leads to the left to "Camp Roosevelt," and one to the right to the main buffalo corral, 12 miles, and to *Soda Butte,* 17 miles. Next is the soldier station. The next camp site is 1 mile farther, where a road bears off to the left to the *Petrified Trees,* one-half mile from the main road. There is a very pretty walk back of Camp Roosevelt up through *Lost Creek Canyon* and past *Lost Creek Falls.* The next good camp site is at Blacktail Deer Creek, 10 miles farther.

After leaving Petrified Trees Junction the road climbs a hill 3 miles long, then traverses *Crescent Gulch* to the *Blacktail Deer Divide,* from which point there is a long, steady de-

scent to Gardiner River, within 2 miles of Mammoth Hot Springs.

At *Blacktail Deer Creek* is a good camp site and there is good fishing for native and rainbow trout. A trail to the right, just beyond the bridge, leads to Yellowstone River, 3 miles away, where there is more good fishing.

A mile and a half beyond this creek the road crosses *Lava Creek,* and a few hundred yards below is Undine Falls (60 feet), remarkable for the development of basalt in the walls of its canyon (East Gardiner or Lava Creek Canyon). It is 5 miles from Mammoth Hot Springs, and there is a good camp site. Good fishing for native and eastern brook trout.

At *Gardiner River,* 18 miles from Tower Falls, the road crosses on the highest and longest steel bridge in the Park, and soon after Mammoth Hot Springs is reached.

Yellowstone, Mont. (Western Entrance), to the "Loop" Road

Yellowstone, Mont., is a terminus of Union Pacific System, and is the western entrance to the Park. Guides, outfits,

and supplies for Park trips can be secured. This is the post office for tourists entering and leaving via the western entrance.

The road lies up *Madison River* to the junction of *Gibbon* and *Firehole Rivers* (13 miles), where one road leads to the right up Firehole River toward Fountain and the other road leads to the left up Gibbon River toward Norris. At Yellowstone the road lies through a level country, and as the river is ascended low hills appear on either side. They increase in height as the river is ascended until they culminate in *Mount Burley* on the right and *Purple Mountain* on the left. Camp sites occur 3 miles, 7½ miles, 12 miles, and 13 miles from Yellowstone. There is fine fishing at all points for grayling, whitefish, native, eastern brook, Loch Leven, Von Behr, and rainbow trout.

On the right fork the loop road is reached at Firehole Cascades, 5½ miles from Fountain. Going up the left fork the loop road is reached near Wylie's camp, 17 miles from Yellowstone, 10 miles from Norris.

Cody, Wyo., via Eastern Entrance to "Loop" Road

Cody, Wyo., is the terminus of a branch line of the Chicago, Burlington & Quincy Railroad. It is located 63 miles from the eastern entrance of the park. Guides, outfits, and supplies may be secured here. From Cody, Wyo., there is motor service extending throughout the whole park, following the regulation route. Wagon parties from Cody would do well to carry with them feed and forage enough for the first 40 miles, as most of the available space is occupied by farms and ranches. After this point is gained there are frequent camp sites to the park boundary. This road leads over a high and snowy pass and is seldom open before July 1. Road lies up the *Shoshone River* through the picturesque valley and canyon of the Shoshone and then up *Middle Creek* to *Sylvan Pass*.

At the eastern entrance is located a soldier station and 1 mile farther is a good camping site. On both Shoshone River and Middle Creek there is good fishing for native trout. The next camp site is at Sylvan Lake, 9 miles farther. At Sylvan Pass, altitude 8,650 feet,

8 miles from eastern boundary, the road leaves Middle Creek and passes between high frowning cliffs on either side.

Two beautiful small lakes are passed, the first being *Lake Eleanor* and the second *Sylvan Lake,* a dainty little sheet of water, set in the midst of heavy timber, surrounded by high and rugged peaks. Sylvan Lake is 9 miles from the eastern boundary and its altitude is 8,350 feet. At this point is a camp site; the next one is at *Cub Creek,* 4 miles farther. There is another camp site 4 miles beyond Cub Creek.

Turbid Lake, altitude 7,900 feet, 20 miles from the eastern boundary, has a camp site at its southern end. This lake is remarkable for the innumerable hot springs and steam openings in its bottom and along its shores. These springs keep the water more or less agitated and muddy, but there is good water for camp purposes in *Bear Creek,* flowing into Turbid Lake from the southeast. The next camp site is at *Indian Pond,* near the north shore of the Yellowstone Lake, 3 miles farther and 5 miles from Lake Hotel. The junction point of this road and the Loop

Road is nearly 2 miles north of the Lake Hotel.

Moran, Wyo., via Southern Entrance to Loop Road

Moran, Wyo., is located on Jackson Lake, 25 miles south of the southern boundary of Yellowstone Park. From Moran to the southern boundary the road lies to the east of *Jackson Lake* and *Snake River*. There are numerous camp sites along this section of the road.

At the southern boundary, altitude 6,850 feet, is the soldier station. A good camp site is near and there is good fishing for whitefish, native, Loch Leven, and Lake trout in Lewis and Snake Rivers. Next camp site is 8 miles farther on.

Moose Falls is on *Crawfish Creek*, 1 mile north of southern boundary and 100 yards east of road. The road leads over the hills west of and parallel with the *Lewis River* to *Lewis Falls* (upper, 80 feet high; lower, 50 feet high), altitude 7,650 feet, 9 miles from south boundary. While climbing the hill through the burned section the tourist should

look back at the Teton Mountains to the south. A good camp site is just north of Lewis Falls, on *Aster Creek,* up which the road turns. The next camp site is at the north end of *Lewis Lake,* 4 miles farther on.

Lewis Lake, altitude 7,720 feet, is a heart-shaped lake, 3 miles north and south by 2 miles wide, lying to the west of *Mount Sheridan.* It has an extensive hot springs basin on its northwestern shore. Lewis River, which rises in *Shoshone Lake* farther north, flows through this lake on its way to Snake River. There is good fishing in Lewis Lake and its inlet for Lake trout. The next camp sites after leaving Lewis Lake are 2 miles north and 7 miles north.

From Lewis Lake the road climbs gradually up the *Continental Divide,* altitude 8,000 feet, and then drops down to Yellowstone Lake, a mile and a half south of the Thumb.

Prominent Geysers and Springs

The most important geysers and springs are listed below, together with their height, duration and interval of eruption.

Prominent geysers and springs.

[Based upon observations, season 1916.]

NORRIS BASIN.

Black Growler, steam vent only.

Constant — ht.[1] 15-35 ft.; dur.[2] 5-15 sec.; int.[3] 20-55 sec.

Congress Pool, large boiling spring.

Echinus — ht. 30 ft.; dur. 3 min.; int. 45-50 min.

Emerald Pool, beautiful hot spring.

Hurricane — ht. 6-8 ft.; continuous.

Minute Man — ht. 8-15 ft.; dur. 15 to 30 sec.; int. 1 to 3 min.; sometimes quiet for long periods.

Monarch — ht. 100-125 ft.; dur. 6 min.; int. irregular.

New Crater — ht. 6-25 ft.; dur. 1 to 4 min.; int. 2 to 5 min.

Valentine — ht. 60 ft.; dur. 15 to 60 min.; int. irregular.

LOWER BASIN.

Black Warrior — dur. continuous. Small but interesting geyser.

White Dome — ht. 10 ft.; dur. 1 min.; int. 40 to 60 min. Small but interesting geyser.

Clepsydra — ht. 10-40 ft.; dur. few seconds; int. 3 minutes.

Fountain Geyser, seldom in eruption.

Firehole Lake, peculiar phenomena.

Great Fountain — ht. 75-150 ft.; dur. 45 to 60 min.; int. 8 to 12 hours. Spouts 4 or 5 times.

Mammoth Paint Pots, basin of boiling clay.

[1] Height of eruption.
[2] Duration of eruption.
[3] Interval between eruptions.

Excelsior — ht. 200-300 ft.; dur. about ½ hour. Ceased playing in 1888.

Prismatic Lake, size about 250 by 400 feet; remarkable coloring.

Turquoise Spring, about 100 feet in diameter.

UPPER BASIN.

Artemisia — ht. 50 ft.; dur. 10 to 15 min.; int. 24 to 30 hours. Varies.

Atomizer — ht. 2 ft.

Bee Hive — ht. 200 ft.; dur. 6 to 8 min.; int. 3 to 5 times at 12-hour intervals following Giantess.

Castle — ht. 50-75 ft.; dur. 30 min.; int. 24 to 26 hours. Quiet 4 to 7 days, then plays 3 or 4 times at intervals stated.

Cub, large — ht. 60 ft.; dur. 8 min.; int. with Lioness. Short chimney to Lion and Lioness.

Cub, small — ht. 10-30 ft.; dur. 17 min.; int. 2½ hours. Short chimney to Lion and Lioness.

Daisy — ht. 70 ft.; dur. 3 min.; int. 85 to 90 min.

Economic — ht. 20 ft.; dur. few sec. Seldom in eruption.

Fan — ht. 15-25 ft.; dur. 10 min.; int. irregular.

Giant — ht. 200-250 ft.; dur. 60 min.; int. 6 to 14 days.

Giantess — ht. 150-200 ft.; dur. 12 to 36 hours; int. irregular, 5 to 40 days.

Grand — ht. 200 ft.; dur. 15 to 30 min.; int. irregular, 1 to 2 days.

Grotto — ht. 20-30 ft.; dur. varies; int. 2 to 5 hours.

Jewel — ht. 5-20 ft.; dur. about 1 min.; int. 5 min.

Lion — ht. 50-60 ft.; dur. about 2 to 4 min.; int. irregular. Usually 2 to 17 times a day.

Lioness — ht. 80-100 ft.; dur. about 30 min.; int.

irregular. Played once in 1910, once in 1912, and once early in 1914.

Mortar — ht. 30 ft.; dur. 4 to 6 min.; int. irregular.

Oblong — ht. 20-40 ft.; dur. 7 min.; int. 8 to 15 hours.

Old Faithful — ht. 120-170 ft.; dur. 4 min.; int. 65 to 80 min. Usual interval 75 minutes.

Riverside — ht. 80-100 ft.; dur. 15 min.; int. about 6 hours. Very regular.

Sawmill — ht. 20-35 ft.; dur. 1 to 3 hours; int. irregular. Usually 5 to 8 times a day.

Spasmodic — ht. 4 ft.; dur. 20 to 60 min.; 3 to 4 times a day.

Splendid — ht. 200 ft.; dur. 10 min. Not played since 1892.

Turban — ht. 20-40 ft.; dur. 10 min. to 3 hrs.; int. irregular.

Notable springs:

Black Sand Spring (about 55 by 60 feet).
Chinaman.
Emerald Pool.
Morning Glory.
Punch Bowl.
Sponge.
Sunset Lake.

Notes on Fish in Yellowstone Park

Blackspotted or cut-throat trout (*Salmo Mykiss*).— Native to many park waters. Without doubt reached Upper Yellowstone and Yellowstone Lake from Pacific slope through Two-Ocean Pass during high water in spring.

Whitefish (*Coregonus clupeiformis*).— Native to Yellowstone River below falls, and Gardiner, Madison, and Gallatin Rivers. Planted in Yellowstone River above the falls.

Grayling (*Thymallus Ontariensis Montanus*).— Native to Madison and Gallatin Rivers and branches.

Eastern brook trout (*Salvelinus fontanalis*). — Planted.

Loch Leven Trout (*Salmo Trutti levensis*). — Planted.

Von Behr (*German brown*) *trout* (*Salmo Fario*).— Planted.

Rainbow trout (*Salmo Irideus*).— Planted.

Lake trout (*Cristivomer Namaycush*).— Planted.

Land-locked salmon and black bass have been planted in the Park, but apparently did not thrive, as they have never been heard from since they were planted.

Regarding Automobiles

Permits for automobiles may be secured at the entrances to the Park on payment of $7.50, which covers such requirement for the season. Motorists intending to take their cars into the Yellowstone are advised to write the National

Parks Service, Washington, D. C., for a full set of rules, regulations and maps.

II

GLACIER NATIONAL PARK

SECOND in size of the United States parks, but second to none in point of grandeur and interest, Glacier National Park comprises some 915,000 acres in Northern Montana. Here are 1,430 square miles of wild and rugged land in the heart of the Rocky Mountains, wholly unspoiled by the hand of man, yet so equipped with conveniences for the traveler and so accessible by the Great Northern Railway from both east and west that it is one of the finest recreation grounds in the world.

Glacier National Park is unique among the parks under Federal supervision. It takes its name from the many glaciers which are scattered among the mountain heights throughout its area. Within its borders there are more than 250 lakes, in whose clear depths are mirrored lofty mountains, some heavily wooded with primeval forests and others gaunt craggy

heights of inviting awesomeness. In Glacier Park you can come as close as you wish to the "great heart of nature"; but even the old and infirm may see much of the Park without discomfort, owing to the automobile transportation between several of the camps and the well regulated hostelries that offer their large hospitality in various parts of the Park.

The tourist season in Glacier National Park is from June fifteenth to October first.

How to Reach the Park

There are two principal entrances to Glacier Park, both of them on the main line of the Great Northern Railway. At the southeastern corner one enters at Glacier Park Station, and at the southwestern end the entrance is made at Belton. Either of these is quite accessible from Chicago and other eastern points, and Seattle and other parts of the northwest by way of the Great Northern Railway. From the southeast and middle west the Park is reached by the Chicago, Burlington & Quincy Railroad connecting at Billings, Mont., with the Great Northern Railway, and from the southwest via the Southern Pacific

and the Union Pacific System to Butte, Mont., and thence by the Great Northern.

Stopovers are allowed on all through tickets over the Great Northern Railway to allow of as long a sojourn in the Park as one desires. On round-trip tickets, during the Park season, this is without regard to the time limit indicated.

Accommodations and Transportation—Costs

Trips through the Park may be taken with equal advantage from either entrance, but to approach the Park from the east possibly gives one a more imposing impression of the grandeur of the scenery. It is here that is situated the unique and beautiful Glacier Park Hotel (American Plan — $4 per day upward) notable for its adaptation of châlet architecture and the novel use of huge tree trunks in its construction. In the ten permanent camps operated by the Great Northern Railway throughout the Park very satisfactory accommodations and meals are furnished at $3 per day, so that even a long sojourn need not call for an excessive outlay of money. The camps are composed of log buildings, built in the

Swiss châlet style, and are as comfortable and sanitary as they are picturesque. They are situated at the following points: Glacier Park Station (outside the Park), Two Medicine Lake, Cut Bank River, Lake St. Mary, Many Glacier Camp, Going-to-the-Sun Camp, Gunsight Lake, Sperry Glacier, Granite Park, and Belton (outside the Park). All inquiries to these should be addressed to the Great Northern Railway, Glacier Park Station, Mont.

The following are camps or hotels under private management and situated on patented land:

National Park Cabin Resort, at the foot of Lake McDonald. Prop., E. E. Dow, Belton, Mont. Rates $2 to $3 per day.

Glacier Hotel, near head of Lake McDonald. Prop., J. E. Lewis, Lake McDonald P. O., Mont. Rates $4 to $6 per day.

Park Hotel (Geduhn's), at head of Lake McDonald. Prop., James Conlon, trustee, Belton, Mont. Rates $2.50 to $3 per day.

The methods of transportation in the Park are by automobile, horse stage, launches on the lakes, and saddle and pack horses. There are no fixed definite tours which must be con-

formed to or made in a special number of days, but a large variety of tours can be made ranging from one-day auto tours to thirty-day horseback tours.

Vehicles can be used between Belton and Lake McDonald, also between Glacier Park Station and Two Medicine, Cut Bank, St. Mary, and Many Glacier camps. Between all other points the tourist must travel on horseback or walk.

Attention is particularly directed to the fact that walking tours offer an inexpensive way to see the Park. Permanent camps are located within a day's walk of each other, ranging from 8 to 16 miles apart. Walking tours can be made at a cost of $3.25 to $3.50 per day by using the châlet camps, or, if a small party takes its outfit and dispenses with guides and horses, the trip can be made for $1 per person per day, provisions being purchased as needed from the camps and hotels.

Stage and Automobile Service

All regular stage fares include transportation of one piece of baggage weighing not more than 20 pounds.

Glacier Park Station, St. Mary Chalets, and Many Glacier Hotel on Lake McDermott.—Daily automobile service is maintained on the following schedules:

Automobile schedule, Glacier Park Station to St. Mary Chalets and Many Glacier Hotel.

Leave Glacier Park at 8 a. m. and 1.30 p. m.
Arrive St. Mary Chalets at 10.45 a. m. and 4.15 p. m.
Leave St. Mary Chalets at 11 a. m. and 4.30 p. m.
Arrive Many Glacier Hotel at 12.45 p. m. and 6.15 p. m.

Automobile schedule, Many Glacier Hotel to St. Mary Chalets and Glacier Park Station.

Leave Many Glacier Hotel at 8 a. m. and 1.30 p. m.
Arrive St. Mary Chalets at 9.45 a. m. and 3.15 p. m.
Leave St. Mary Chalets at 10 a. m. and 3.30 p. m.
Arrive Glacier Park Hotel at 12.45 p. m. and 6.15 p. m.

Automobile Rates.

Between—	One way.	Round trip.
Glacier Park Hotel and St. Mary Chalets	$3.50	$7.00
Glacier Park Hotel and Many Glacier Hotel	6.50	13.00
St. Mary Chalets and Many Glacier Hotel	3.00	6.00

Automobile Rates—Continued.

Between—	One way.	Round trip.
Glacier Park Hotel and Two Medicine Chalets	1.50	3.00
Glacier Park Hotel and Cut Bank Chalets[1]	..	5.00
Belton and Lake McDonald	.50	1.00

[1] No regular daily service between these points; rate applies only for minimum of 4 round-trip fares.

Glacier Park Station and Two Medicine Chalets.—Daily automobile service is maintained between Glacier Park Station and Two Medicine Chalets.

Leave Glacier Park Hotel at 10 a. m.
Arrive at Two Medicine Chalets at 11.30 a. m.
Leave Two Medicine Chalets at 4 p. m.
Arrive at Glacier Park Hotel at 5 p. m.
Fare, $1.50 in each direction.

Automobile rental.—Tourists desiring to rent private automobiles for special trips from Placier Park Hotel or Many Glacier Hotel may secure them from the Glacier Park Transportation Co. This service may be had only when cars are available without interrupting

regular service. Charge is on the basis of 80 cents a mile for the round trip, with a minimum charge of $40. No cars will be chartered for more than one day, except by special arrangement with the automobile company. Cars will not be chartered for one-way trips.

A flat charge between Glacier Park and other points for special cars operating in charter service will be as follows:

Glacier Park to Two Medicine and return	$20.00
Glacier Park to Cut Bank and return	35.00
Glacier Park to St. Mary and return	50.00
Glacier Park to Many Glacier and return	85.00

There will be an additional charge of $4 per hour for touring cars chartered by special parties for every idle hour during the company's working day, which is from 7 a. m. to 7 p. m. No charge will be made after 7 p. m. until 7 a. m. the following morning.

Belton, foot of Lake McDonald, and Fish Creek.—John Weightman (address, Belton, Mont.), maintains a stage service and the Glacier Park Transportation Co. an auto service between Belton Station, the foot of Lake McDonald, and Fish Creek, connecting with

launches for all points on the lake and with all Great Northern passenger trains at Belton.

Stage fares between Belton, Lake McDonald and Fish Creek.

Belton and Lake McDonald, each way.....$0.50
Belton and Fish Creek, each way..... .75

Boat Service

All regular boat fares include transportation of one piece of baggage weighing not more than 20 pounds.

Upper St. Mary Lake.—Two round trips a day will be made between St. Mary and Going-to-the-Sun Chalets, connecting with the automobile service between Glacier Park Station, St. Mary Chalets, and Many Glacier Hotel at Lake McDermott. Fare between St. Mary and Going-to-the-Sun Chalets, 75 cents in each direction.

Launch schedule between St. Mary and Going-to-the-Sun Chalets.

Leave Going-to-the-Sun Chalets at 8.45 a. m. and 2 p. m.

Arrive St. Mary Chalets at 9.45 a. m. and 3 p. m.
Leave St. Mary Chalets at 11.15 a. m. and 5 p. m.
Arrive Going-to-the-Sun Chalets at 12.15 p. m. and 6 p. m.

Lake McDonald.—Launch service is maintained by Lewis & Kelley (Belton, Mont.), on Lake McDonald, connecting with all stages at the foot of the lake for points on the lake. Distance, 10 miles; time, 1 hour. Fare one way to or from the head of the lake, 75 cents; round trip, $1.25. Trunks and baggage, each way, 50 cents. Fare to Fish Creek, park office, 25 cents each way.

Rowboats on Two Medicine, St. Mary, McDermott, and Gunsight Lakes.—At Two Medicine and St. Mary Chalets and Many Glacier Hotel, McDermott, and Sunsight Lakes rowboats can be rented at the rate of 25 cents per hour, with a maximum cost of $1.50 per day.

Horses and Guides

The Park Saddle Horse Co. furnishes saddle and pack horse service, guides and camp outfits.

Guides, saddle, and pack horses can be secured, or released, at Glacier Park Station, Many Glacier Hotel, Going-to-the-Sun Chalets, Glacier Hotel on Lake McDonald, for non-scheduled, indefinite trips, at the following rates;

Rates for guides and horses.

Guides, including horse and board, per day....$5.00
Saddle and pack horses, per day..... 3.00

Park rules require 1 guide for every 10 persons or fraction of 10. Pack horses are not needed for short one-day trips, but are necessary for long trips of several days. One pack horse will carry the dunnage of 10 people.

All saddle horses are required to be equipped with waterproof slickers, which outfitters supply free.

The guides in charge of a party shall at all times precede the party and the assisting guides shall follow the party.

It shall be the duty of the assisting guide to handle the pack horses, to prevent their crowding each other or the horses of the tourists on mountain trails.

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Tourist camp on Two Medicine Lake, Glacier Park, Mont.

A complete horseback tour of Glacier National Park from Glacier Park Hotel, visiting all chalet groups, with several side trips to principal points of interest, such as Iceberg Lake, Cracker Lake, Sperry Glacier, etc., can be made in from 10 to 14 days. Tourists using such horseback tours can travel at their own convenience without the necessity of following a fixed schedule.

What to See

Probably the best way to see Glacier Park with moderate thoroughness is by taking a horseback tour. One cannot penetrate very far into the interior in any other way, but this is not to say that those who have to do their traveling in the Park by automobile miss the majority of its splendid attractions.

If you leave the train at Belton, you will feel as though you had stepped out on the edge of Switzerland. A stone's throw from the châlet, across the emerald green Flathead River, is the Park. The mountains are not precipitous here, but there is promise in the sharp slopes, and the tonic air of this high-

land country invites to action. Perhaps as dusk falls, a party of travelers arrives from a trip across the Divide. Men and women in outdoor clothes breeze in with a clatter of hob-nailed boots, throw off their Mackinaw coats and felt hats, and draw chairs around the log fire. Later you hear them recounting their adventures. Perhaps they ran into a snow-storm up near Gunsight Pass, or maybe they saw a grizzly bear shuffle across the trail, or it might have been that they had been fishing in Red Eagle Lake and had caught a ten-pound trout. All this sounds very good to you with the dust of cities still on your shoes, the cob-webs of the indoors on your brain, and to-morrow, when you will start out to see for yourself, seems a long way off.

A half-hour's ride behind four horses takes you across the green Flathead, sparkling in the morning sun, into the confines of the Park. Just over the bridge the road ascends a short hill. You are unconsciously glad you have the inside track, and if you meet another vehicle coming in the opposite direction, grazing wheels as it passes on the edge of what seems a considerable cliff with an inhospitable river

below, you justify your complacency by remarking, "Well, I suppose these people are used to it." The hill is not very steep, though, and presently your wagon is bowling merrily over a broad, flat road through a forest of fragant pines. Life has suddenly developed into a different thing. A bird sings out a welcome, and you are glad — this is freedom! Miles are shortened into rods, and only the knowledge that beyond lie lake and mountain and forest restrains your desire to linger right here.

Lake McDonald, largest of all the bodies of water in Glacier National Park, is also the most accessible. Your drive of three miles from Belton brings you to the southern end, where there is an unassuming motor boat ready to take you to the northern. Put your camera away, fight the almost irresistible impulse to take snapshots of those mighty mountains so far ahead, for the results will not justify the use of films in a region where you are not always in sight of a photographic supply store. There will be plenty of opportunities later when you are in the midst of things. Sit back, and as the boat cuts its way through the

blue water, a mile and a half from either shore, consider the absence of every sight that would suggest commerce, and the fact that your grandchildren's children may see this unchanged. This is Never Never Land, where hours stand still, and lock-out time comes only when you are outside its borders.

There has been singularly little of Montana's picturesque history enacted in the region now embraced by the Park. Lewis and Clark, on their expedition early in the Nineteenth Century, passed from the northeastern to the southwestern part of the State. The gold mines of Virginia City and thereabouts were 300 miles south, and it was thither the "bad men" flocked with their guns and bowie knives that paved the way for so much profitable material for the fiction magazines. Road-agents avoided this country, for there were no roads. The Blackfoot Indians, whose reservation now adjoins the Park on the east, roamed far afield in the early days, and when they came in contact with the white man it was generally on the upper reaches of the Missouri River.

They hunted in the mountains and fished in

the lakes that are now yours as an American citizen. That is a better thought as you glide over the surface of Lake McDonald than it possible can be as drawn on a printed page. Glacier Park is yours and your children's!

Near the upper end of the lake there is a camp called Glacier Hotel, rustic but thoroughly comfortable. A cluster of log houses among the trees looks out across the water to mountains that rise in a sharp slant from near the shore. If your vision is keen, you can see wild mountain goats or sheep far up on those cliffs. Round about the log houses is a dense forest of tall, columnar trees into the depths of which you are impelled by a desire to go. There is a trail that leads through the timber to the northern end of the lake and a little beyond, where McDonald Creek spills white over the rocks. Follow along this way and you may have the good fortune to see some wild life. The birds, at any rate, will welcome you with song, squirrels will pause in their scamperings and look at you unafraid, and perhaps you will see a deer. Much of the charm of the Park is devoid of the spectacular, and the freedom here in the wilderness, and the

simplicity and beauty of the unspoiled woodlands, will remain a part of the wonder of it all, even in the presence of the most stupendous views.

Let us have the horses saddled, leave our first camp, and strike out over the mountains to the east. It will be a ride to be remembered always, so don't stay behind. The horses are well used to the mountain trails; and even if you are not saddle-broken, you will always be glad that being a tenderfoot did not prevent you from going. "When I get back to New York," said a fellow-traveler whose enthusiasm had led him to an unwise display of amateur horsemanship on the level stretches, "I'm going to insult every horse I meet." The moral is — take it easy!

The way to Sperry Glacier Camp is upward, and the trail leads down into the valleys and canyons between. The horses, perhaps there will be fifteen or twenty of them if you go with a party, stretch out in Indian file, with a guide to the fore and another bringing up the rear. This is real traveling, and the thought that it is the only way you can go — the way the pioneers went — appeals to you. Pres-

ently there is a swift running stream to cross. The first horse of the little caravan steps into the flood, halts and plunges his nose into the cold water. Then he starts across and the rest follow, each stopping for a drink before wading through. Across this river there is another ford, and the novelty of riding up the bed of a little stream that empties into the larger. Then up the trail that leads into the recesses of the everlasting hills. You look across deep canyons to jagged cliffs, snow spotted in July; gaze far out over waves of glinting peaks; you pause to gather from your saddle a flower that has blossomed for you all alone here in the Rocky Mountains. The ponies forge ahead, and, as the line straggles along, your thoughts go back to the pioneers who crossed the divide when the nation was young. There were no camps then, conveniently located a day's journey, or less, apart, and the Indians knew not the restrictions of reservations. To-day the majesty of the mountains is as undefiled and as poignant as then, and the region is still aloof from the desecrating hand of man, but we have been given the means of going there and enjoying in full

the glory of what in the early days was a terrible and dangerous barrier.

Sperry Glacier Camp is up in the world — a cluster of log houses similar to those on Lake McDonald, but built to resemble the châlets of the Swiss mountains — and, having reached it after several hours in the saddle, it is a haven — nay, a heaven — of rest. The guides take care of the horses, and the travelers — those to whom the outdoors calls naturally — turn to the little stream near by for ante-prandial ablutions, or, in parlance more current in these parts, a "wash-up before grub."

Sperry Glacier is half a mile — bee-line measurement — from the camp, but the trip there and back requires an afternoon. The way lies over an up-and-down, zigzag trail that has been cut out of solid rock. There is a wonderful satisfaction in "coming down off this feather bed of civilization," as Stevenson puts it, "and finding the globe granite underfoot," even at the risk of temporary discomfort to one's breathing apparatus. Finally the glacier is reached, and unless you are something more — or less — than human, you

will reach down for a handful of the snow that covers the ice beneath, and pelt your nearest neighbor with it, thinking the while how you will tell the people back home of the day in June, or July or August when you indulged in the luxury of a snow-ball fight. "They won't believe it," you muse whimsically, "but it makes a good story."

From Sperry Glacier Camp the way is over a trail that leads up beyond the timber line, skirting lakes that in the far distance below look like glassy pools, clinging to mountainsides, and climbing up, up, up to the tip top of the continent at Gunsight Pass. It is here that you cross the Great Divide, the culminating point in a series of scenic climaxes that come in quick succession. To the south, far down the mountainside, Lake Louise reflects the blue of the sky and the gray of the peaks; to the north, nestling at the base of a mighty mountain, a mother of many glaciers, lies Gunsight Lake, 3,000 feet below, a gem in the great mosaic of rock and forest and sky and snow that is titanically spread out.

Beside the lake, once you have climbed

down the trail that descends to it in short zigzags, you will end your day's journey at another of the châlet camps. There in the wilds you will rest and be refreshed; you will be lulled to sleep by the shrill yelp of the coyotes, and find yourself wondrously satisfied with this life in the open.

The next stage of the journey is along the St. Mary River, which flows out of Gunsight Lake, crosses a green plateau, dives between the twin peaks of Citadel and Going-to-the-Sun, and empties into Lake St. Mary, near the head of which is Going-to-the-Sun Camp. Here, where the shores of the lake converge, is one of the most beautiful spots in the Park. To the west rises the mountain the Indians called Going-to-the-Sun; sloping to the north is Goat Mountain; and between the two the cold white of Sexton Glacier stands out against the rocks. The thought comes to you that these Rocky Mountains are appropriately named.

Here, at the Going-to-the-Sun Camp, is an opportunity for those whose enthusiasm for the saddle has waned to complete the trip in another way. It is only an hour or so by

launch to the camp at the lower end of the lake, and there one may be met by an automobile for the return to — I had almost said "civilization," but if that implies an aspersion on the life of fulness in Glacier National Park, it shall be left unsaid.

The shores of Lake St. Mary are more mountainous than those of that other great and beautiful body of water, Lake McDonald, and the region is in consequence more picturesque. Sometimes, however, a windstorm will sweep down between the mountains and kick up a sea that covers the surface with white-caps and sends big breakers rolling inshore, and when that happens it is necessary to make the trip down the trail on horseback or, better still, wait over at the Narrows Camp until the Lake is calm again. You can fish or you can hunt (with a camera) or you can take excursions into the mountains; time will not hang heavily on your hands.

It is thirty or forty or fifty miles from St. Mary Camp at the lower end of the lake back to Glacier Park Station, the eastern gateway to the Park, depending on whether you stop over at Cutbank or Two Medicine,

or both, or go direct. The shortest way is by automobile — about three hours of the most pleasurable motoring imaginable. A few miles from Lake St. Mary the road leaves the Park and strikes out across the gaunt, rolling prairie land of the Blackfoot Indian Reservation, on which you may see really noble red men. It winds in and out among the low hills, between clumps of aspen and cottonwood, across running streams, through strange hollows and over elevations from which you can look north into Canada. Behind you and off to the west are the gleaming mountains; ahead, and to the east, stretches the prairie that once knew the thunder of buffalo herds and the Indian warwhoop, but now hears only the occasional whirr of a gasoline engine and the hoofbeats of bronchos. You will feel the fascination of the West in all this bigness and freedom and it will be strange if you do not yield to the invitation to put in at Two Medicine Lake to spend another night in the midst of the mountains. You feel as a boy who may not stay in swimming longer than a certain allotted time, and when that time has passed wants "just five minutes more."

The way to Two Medicine is over a forest road so new that you can see the scars on the trees where the trail was blazed before it. Except for the birds and an occasional creek that has come from the glaciers high above, there is absolute quiet. It is worth while, by the way, to encourage any natural loquacity that may be a part of your guide's make-up. He will converse intelligently and often with much native humor on any topic from woman's suffrage to the possibility of meeting with a grizzly bear. He will no doubt suggest a twenty-minute detour from the road to the Trick Falls; and if you follow him down the wild woodland trail, you will be rewarded by the sight of a river pouring out of a slit in the rocks down to the river bed some twenty-five feet below. When the water is flowing with greater volume, it tumbles over the top of the cliff as well, making a double cascade, as high again but less curious.

The camp at Two Medicine Lake is almost directly at the water's edge. It faces Mt. Rockwell, a steep and sharply-pointed peak like a sugar-loaf, which seems half a mile

down the lake and is in reality three. Shadowing it on the north is Rising Wolf Mountain, with tiny streams spilling down its side into the lake. All about is the forest. It seems like a little world in itself, this niche in the Rockies, a place where everything of yesterday and of to-morrow is out of place — cannot come in.

From Two Medicine Camp back to the Glacier Park Hotel and the railroad is only half a day's easy ride on horseback, or an hour or so by motor, over the Blackfoot Indian Reservation.

An alternative horseback route through the Park from the head of Lake McDonald follows McDonald Creek northward to Granite Park Camp, with an opportunity on the way for a side trip of a few miles to Avalanche Basin. The next stage of the journey takes the tourist to Many Glacier Camp, on McDermott Lake, whence he may visit Iceberg Lake, in which huge pieces of ice are floating in summertime.

From Many Glacier Camp there is a trail to Going-to-the-Sun Camp, meeting the route

Independent Camping Trips

Glacier National Park contains many beautiful camping spots, and camping tours independent of hotels or chalets are popular for tourists who like to "rough it." The Park Saddle Horse Co., licensed outfitters in Glacier Park, are prepared to furnish complete outfits at the following prices for trips of 10 or more days:

Rates for Complete Camping Tours.

	Cost per day per person.
1 person	$25.00
2 persons	15.75
3 persons	12.65
4 persons	12.40
5 persons	11.30
6 persons	10.60
7 persons	10.00
8 persons	9.70
9 persons	9.60
10 persons or more	9.50

Foregoing rates include the necessary guides, cooks, saddle horses, pack horses, provisions, tents, cooking utensils, stoves, and everything except blankets. Tourists are advised to bring their own blankets or bedding, or can rent blankets from the outfitters at $1 per pair.

Trips from Hotels and Camps

Below are given the principal trips from the hotel and camps. Road trips can also be made on horseback or on foot; trail trips can be made on horseback or on foot unless otherwise indicated.

From Glacier Park Hotel (Glacier Park Station and Post Office)

(Altitude 4,800 feet.)

St. Mary Camp (4,500 feet).—Road; 32 miles; automobile stage fare $3 in each direction.

Two Medicine Camp (5,200 feet) *on Two Medicine Lake.*—Road; 12 miles; stage fare $1.25 in each direction.

Mount Henry (8,875 feet).—Trail. From Mount Henry can be obtained a splendid view of the peaks surrounding Two Medicine Lake. This trip can be extended to Two Medicine Camp (5,200 feet) and the return made by stage. Distances: Glacier Park Hotel to Mount Henry, 7 miles; Mount Henry to Two Medicine Camp, 4 miles; Two Medicine Camp to Glacier Park Station by stage road, 12 miles.

Cut Bank Camp (5,200 feet).—Road; 22 miles; stage fare, $2.25 in each direction.

From Two Medicine Camp on Two Medicine Lake

(Altitude, 5,200 feet.)

Trick Falls (5,000 feet).—Road; 2 miles.

Upper Two Medicine Lake (5,600 feet).—Trail, or boat and trail; 4 miles.

Bighorn Basin (6,000 feet).—Trail; 4 miles.

Dawson Pass (7,500 feet).—Trail; 6 miles.

Glacier Park Hotel (4,800 feet).—Road; 12 miles; stage fare $1.25 in each direction.

Glacier Park Hotel (4,800 feet).—Trail by way of Mount Henry (8,875 feet); 11 miles.

Mount Henry (8,875 feet).—Trail; 4 miles. From Mount Henry can be obtained a fine view of the peaks surrounding Two Medicine Lake.

Cut Bank Camp (5,200 feet).—Trail; 16 miles.

From Cut Bank Camp on North Fork of Cut Bank Creek

(Altitude, 5,200 feet.)

Cut Bank Pass (7,861 feet).—Trail; 7 miles. From Cut Bank Pass may be obtained

a fine view of Stimson Mountain (10,155 feet) and Mount St. Nicholas (9,385 feet). As far as known Mount St. Nicholas has never been ascended.

Triple Divide Peak (8,001 feet).—Distance 6 miles. There is no trail, and this trip should be taken by mountain climbers only. Triple Divide Peak separates the headwaters of the Atlantic Ocean, the Pacific Ocean, and Hudson Bay.

Glacier Park Hotel (4,800 feet).—Road; 22 miles; stage fare, $2.25 in each direction.

Two Medicine Camp (5,200 feet).—Trail; 16 miles.

St. Mary Camp (4,500 feet).—Trail and road; 16 miles.

From St. Mary Camp on St. Mary Lake

(Altitude, 4,500 feet.)

Red Eagle Lake (4,702 feet).—Trail; 8 miles; good fishing.

Red Eagle Pass (7,500 feet) *and glacier.*—Trail; 16 miles.

Going-to-the-Sun Camp (4,500 feet).—Launch; 8 miles; fare, 75 cents in each direction.

Cut Bank Camp (5,200 feet).—Road and trail; 16 miles.

Many Glacier Camp on Lake McDermott (4,900 feet).—Road; 23 miles; stage fare, $2.50 in each direction.

Many Glacier Camp on Lake McDermott. (4,900 feet).—Trail; 16 miles.

Glacier Park Station (4,800 feet).—Road; 32 miles; automobile stage fare, $3 in each direction.

From Going-to-the-Sun Camp on St. Mary Lake

(Altitude, 4,500 feet.)

Roes Basin (6,500 feet).—Poor trail; 6 miles.

Sexton Glacier (7,000 feet).—No trail; 6 miles.

Piegan Pass (7,200 feet).—Trail; 12 miles.

Many Glacier Camp on Lake McDermott (4,900 feet).—Trail by way of Piegan Pass (7,200 feet); 22 miles. This trip gives good views of Siyeh and Piegan Mountains, the Garden Wall, and Grinnell Glacier; on this trip Lakes Grinnell, Altyn, and McDermott are passed.

St. Mary Camp (4,500 feet).— Launch, 8 miles, fare 75 cents in each direction.

Gunsight Camp (5,300 feet).— Trail; 9 miles.

From Gunsight Camp

(Altitude, 5,300 feet.)

Going-to-the-Sun Camp (4,500 feet).— Trail; 9 miles.

Sperry Camp (9,000 feet).— Trail crossing Gunsight Pass; 8 miles.

Many Glacier Camp on Lake McDermott (4,900 feet).— Trail by way of Piegan Pass; 23 miles.

Blackfeet Glacier (7,000 feet).— Trail; 2 miles. This is the largest glacier in the Park, having an area of 3 square miles. The glacier is especially dangerous in the vicinity of the upper cascades. Visitors are not allowed to go upon it unless accompanied by competent guides who should be supplied with ropes, belts, creepers, alpenstocks, and emergency equipment. Each visitor to the glacier should have an alpenstock or stout stick 6 or 7 feet long. The alpenstock should be used to sound for blind crevasses and in case a person breaks

through the ice, the alpenstock should be thrown across the crevasse in order to prevent a fall to the bottom.

From Many Glacier Camp on Lake McDermott

(Altitude, 4,900 feet.)

Daily during the season side trips will be conducted from Many Glacier Camp. Guides and horses will be available for a regular daily trip to either Iceberg Lake or Cracker Lake at flat rate of $3 per person regardless of number in party. Parties leave Many Glacier Camp at 9 A. M., returning to camp about 5 P. M.

St. Mary Camp (4,500 feet).— Road; 23 miles; fare, $2.50 in each direction.

St. Mary Camp (4,500 feet).— Trail; 16 miles.

Going-to-the-Sun Camp (4,500 feet) *by way of Piegan Pass* (7,200 feet).— Trail; 22 miles. This trip gives good views of Siyeh and Piegan Mountains, the Garden Wall, Grinnell Glacier, Lakes Grinnell, Altyn, and McDermott.

Iceberg Lake (6,000 feet).— Trail; 7 miles.

Cracker Lake (6,000 feet).— Trail; 7 miles.

Grinnell Lake (5,000 feet).— Trail; 5 miles; footpath to Grinnell Glacier (7,000 feet), distance 2 miles from Grinnell Lake.

Piegan Pass (7,200 feet) *and Garden Wall.* — Trail; 10 miles.

Swiftcurrent Pass (7,176 feet).— Trail; 7 miles.

From Sperry Camp

(Altitude, 8,000 feet.)

Gunsight Camp (5,300 feet).— Trail by way of Gunsight Pass; 8 miles.

Glacier Hotel (Lewis's), Lake McDonald (3,200 feet).— Trail; 7 miles; 2 miles farther to Park Hotel.

Sperry Glacier (9,000 feet).— Trail; 2 miles. This is a steep trail and horses may be used to the foot of the escarpment under the south rim of the glacier, but walking is recommended. The escarpment may be climbed by means of an iron ladder bolted to the rock, or by way of zigzag goat trails. Whichever method of ascent is attempted, visitors should be accompanied by competent

guides provided with ropes. While this glacier is less broken than Blackfeet Glacier, explorations should not be attempted without a guide.

From Glacier and Park Hotels at Head of Lake McDonald

(Altitude, 3,200 feet.)

There will be maintained daily, July 1 to September 1, inclusive, guide and saddle horse service between Going-to-the-Sun Camp and Glacier Hotel (Lewis's) on Lake McDonald via Sperry Camp and Gunsight Pass, in both directions. Rate per person, regardless of number in party, $7. Two days required to make the trip, the night being spent at Gunsight Camp. Horses leave Going-to-the-Sun Camp and Lewis Hotel at 9 A. M.

Paradise Canyon.— Trail; 4 miles from Glacier Hotel, 2 miles from Park Hotel.

Avalanche Basin (3,885 feet).— Trail; 9 miles from Glacier Hotel, 7 miles from Park Hotel.

Trout Lake (3,880 feet).— Trail; 8 miles from Glacier Hotel, 9 miles from Park Hotel.

Lake Ellen Wilson (5,914 feet).— Trail;

10 miles from Glacier Hotel, 12 miles from Park Hotel.

Stanton Mountain (7,744 feet).— Trail to the summit; 7 miles from Glacier Hotel, 5 miles from Park Hotel.

Sperry Camp (8,000 feet).— Trail; 7 miles from Glacier Hotel, 9 miles from Park Hotel.

Fishing

The lakes and streams of Glacier National Park abound in fish. The varieties are the small flat trout, the cutthroat, Dolly Varden, and rainbow trout, varying in size from half a pound to the large bull and Mackinaw trout weighing up to 20 pounds. Of these the gamest is the cutthroat, so called from the two streaks of red running parallel beneath its gills, which inhabits most of the streams and many of the lakes. Bull trout are found mostly in St. Mary Lake. They can be depended upon to put up a hard fight. Most of the trout rise to a fly during June, July, and August. Grasshoppers are used also at times when they refuse the fly. In September spinners with a piece of fresh meat are effective.

All persons desiring to fish in the waters of

the Glacier National Park must obtain a fishing license under the laws of the State of Montana. The fees for these licenses are as follows:

Citizens of the United States who have resided in the State of Montana for six months last past, $1.

Citizens of the United States who have not resided in the State of Montana for six months last past, $2.

Persons not citizens of the United States, irrespective of the length of time they have resided in the State, $5.

Licenses may be obtained from the State fish and game warden, Helena, Mont. The applicant for a license must give his residence, post-office address, business, age, height, weight, color of hair and color of eyes. All fishing must be done in conformity with the State laws regarding open season, size of fish, and limit of catch.

Two Medicine Camp.— Two Medicine Lake is at present being stocked with fish fry by the Government and fishing is therefore temporarily prohibited, but good fishing will be found in the Two Medicine River below Trick Falls, about 2 miles from camp. The trout were never able to get above Trick Falls on

account of the great height and so transplanting was necessary.

Cut Bank Camp.— This camp is located on the banks of the Cut Bank River, which may be fished both ways from the camp for a distance of from 3 to 5 miles with good results. Flat trout and cutthroat are the principal varieties.

St. Mary Camp.— St. Mary Lake is the home of the "Mackinaw" trout, which are caught by trolling from a row boat. Red Eagle Lake located a few miles from St. Mary Camp, has the reputation of being one of the best fishing spots in the Park. There is also good fishing in Red Eagle Creek.

Going-to-the-Sun Camp.— Baring Creek, which empties into St. Mary Lake about a mile above the camp will be found worthy of a visit. For the large Mackinaw trout the upper end of the lake is a good ground.

Many-Glacier Camp.— Very good fishing is to be had near this camp in the Swiftcurrent River, in Canyon Creek, and in Cracker Lake.

Lake McDonald.— Good fishing may be had at all times in Lake McDonald. McDonald Creek and Avalanche Lake may also be fished.

III

YOSEMITE NATIONAL PARK

In the midst of the Sierra Nevada, comprising a section 36 miles long and 48 broad, Yosemite National Park is situated in the counties of Tuolumne, Mariposa, and Mono, California. Its present area of 719,622 acres, or 1,124 square miles, entitles it to third place among the national parks of the United States. It was prior to 1905, some 556 square miles greater in extent, but the boundaries were changed by act of Congress.

"The famous Yosemite Valley," says John Muir, the well-beloved apostle of the western forests, in his splendid book "Our National Parks," [1] "lies in the heart of it, and it includes the headwaters of the Tuolumne and Merced rivers, two of the most songful streams in the world; innumerable lakes and waterfalls and smooth silky lawns; the noblest forests, the

1 Houghton, Mifflin Co. 1909, pp. 77-78.

loftiest granite domes, the deepest ice-sculptured canyons, the brightest crystalline pavements, and snowy mountains soaring into the sky twelve and thirteen thousand feet, arrayed in open ranks and spiry pinnacled groups partially separated by tremendous canyons and amphitheaters. . . ."

The musical appellation of this park signifies in the Indian tongue " full-grown grizzly bear."

The regular tourist season is from May 1 to November 1, but, unlike most of the national parks, the Yosemite is accessible and hotel accommodations are furnished throughout the year. Snow sports in the winter are an attraction to many tourists in addition to the beauties incident to the season.

How to Reach the Park

The Yosemite is about 140 miles from San Francisco. It is reached from Merced, Cal., on the Atchison, Topeka, and Santa Fe and the Southern Pacific Railroads, thence by way of the Yosemite Valley Railroad to El Portal, near the western boundary of the Park. Stage lines run from the terminus of the Yo-

semite Valley Railroad to Yosemite Valley within the Park and from the latter point through Wawona on the southern boundary of the Park to the Mariposa Big Tree Grove.

Accommodations and Transportation—Costs

Government regulations make the cost of visiting Yosemite Park moderate. Personal taste, however, in the matter of accommodations may allow for considerable variation. Following is a schedule of prices:

Desmond Park Service Co.—Hotels and Camps

The following hotels and permanent camps in the park are operated by the Desmond Park Service Co.:

Sentinel Hotel:

Room without bath, including meals, American plan. Baths in detached room free—

2 persons in room, per day, each.....	$4.00
1 person in room, per day, each.....	5.00
2 persons in room, per week, each...	25.00
1 person in room, per week, each....	30.00
2 persons in room, per month, each..	105.00
1 person in room, per month, each...	126.00

New Glacier Point Hotel:

Room without bath, including meals, American plan—

2 persons in room, per day, each....	$4.00
1 person in room, per day, each.....	5.00
2 persons in room, per week, each...	25.00
1 person in room, per week, each....	30.00
2 persons in room, per month, each..	105.00
1 person in room, per month, each...	126.00

Rooms with bath, meals American plan—

3 persons or more in room, per day, each	6.00
2 persons in room, per day, each....	6.50
1 person in room, per day, each.....	7.00

It is especially understood that where connecting rooms have access to private bath, each room is to be considered as having private bath unless one or more of the rooms are locked off from the bathroom.

Yosemite Falls Camp:

Rate, including meals, American plan. Tub and shower baths free in detached building; wooden bungalows used for bedrooms—

Per day, each	4.00
Per week, each	25.00
Per month, each	105.00

[1]See price for rooms occupied by one person.

[1] See note on page 115.

Swimming pool rates—

Use of pool, showers, bathing suit and towels, dressing room and electric hair driers	$0.50
Same price will be charged if person provides self with own bathing suit and towels.	
5 tickets	2.00

Camp Ahwahnee:

Board and lodging—

One person in tent, per day	3.75
One person in tent, per week	22.75
One person in tent, per month	90.00
Two persons in tent, per day	3.00
Two persons in tent, per week	17.50
Two persons in tent, per month	67.50

El Capitan Camp:

Rate, including meals, American plan. Tub and shower baths free in detached building; canvas cottages used for bedrooms—

Per day, each	2.75
Per week, each	17.50
Per four weeks, each	65.00
[1]See price for rooms occupied by one person.	

[1] The bungalow sleeping accommodations supplied for camps and mountain lodges are arranged for two persons and the sleeping rooms are separated by means of curtains. An extra charge of $1 per day will be made for the exclusive use of bungalows by one person.

Tenaya Lake Lodge:

Rate, including meals, American plan. Shower baths in detached building free. Sleeping quarters in canvas bungalows—

Per day, each	$4.00
Per week, each	25.00
Per month, each	105.00

[1]See price for rooms occupied by one person.

Tuolumne Soda Springs Camp:

Rates, including meals, American plan. Shower baths in detached building free. Sleeping quarters in canvas bungalows—

Per day, each	4.00
Per week, each	25.00
Per month, each	105.00

[1]See price for rooms occupied by one person.

Merced Lake Lodge:

Lodge rates, including meals, American plan. Shower baths in detached building free. Sleeping quarters in canvas bungalows—

Per day, each	4.00
Per week, each	25.00
Per month, each	105.00

[1]See price for rooms occupied by one person.

[1] The bungalow sleeping accommodations supplied for camps and mountain lodges are arranged for two persons and the sleeping rooms are separated by means of curtains. An extra charge of $1 per day will be made for the exclusive use of bungalows by one person.

At the Yosemite Falls and Tuolumne Soda Springs Camps, Tenaya and Merced Lake Lodges, Sentinel and Glacier Point Hotels, the following rates apply:

Rates will be computed on the basis of $1 for each meal, and $1 and upward for lodging, according to class of accommodations. For instance, on the basis of $5 per day, lodging and breakfast would be $3, viz., $2 for room and $1 for the meal. All fractions of a day will be arrived at on this basis.

The following lodging and meal rates will apply at El Capitan Camp:

Meal rates with lodging:	
Meals, each	$0.50
Lodging, each	1.25
Transient meal rates:	
Breakfast	.50
Lunch	.75
Dinner	.75

The following lodging and meal rates will apply at Camp Ahwahnee:

Meals:	
Each	$0.75
Per day	2.25
Lodging	.75
Baths, each	.25

A deduction of 50 cents from the regular daily rates will be accorded guests when lunch is taken at Glacier Point.

Rates for children when accompanied by parents or guardians:

Children 8 years of age and over, full rate.

Children under 8 years of age and occupying seat in dining room, one-half of regular rate will be charged.

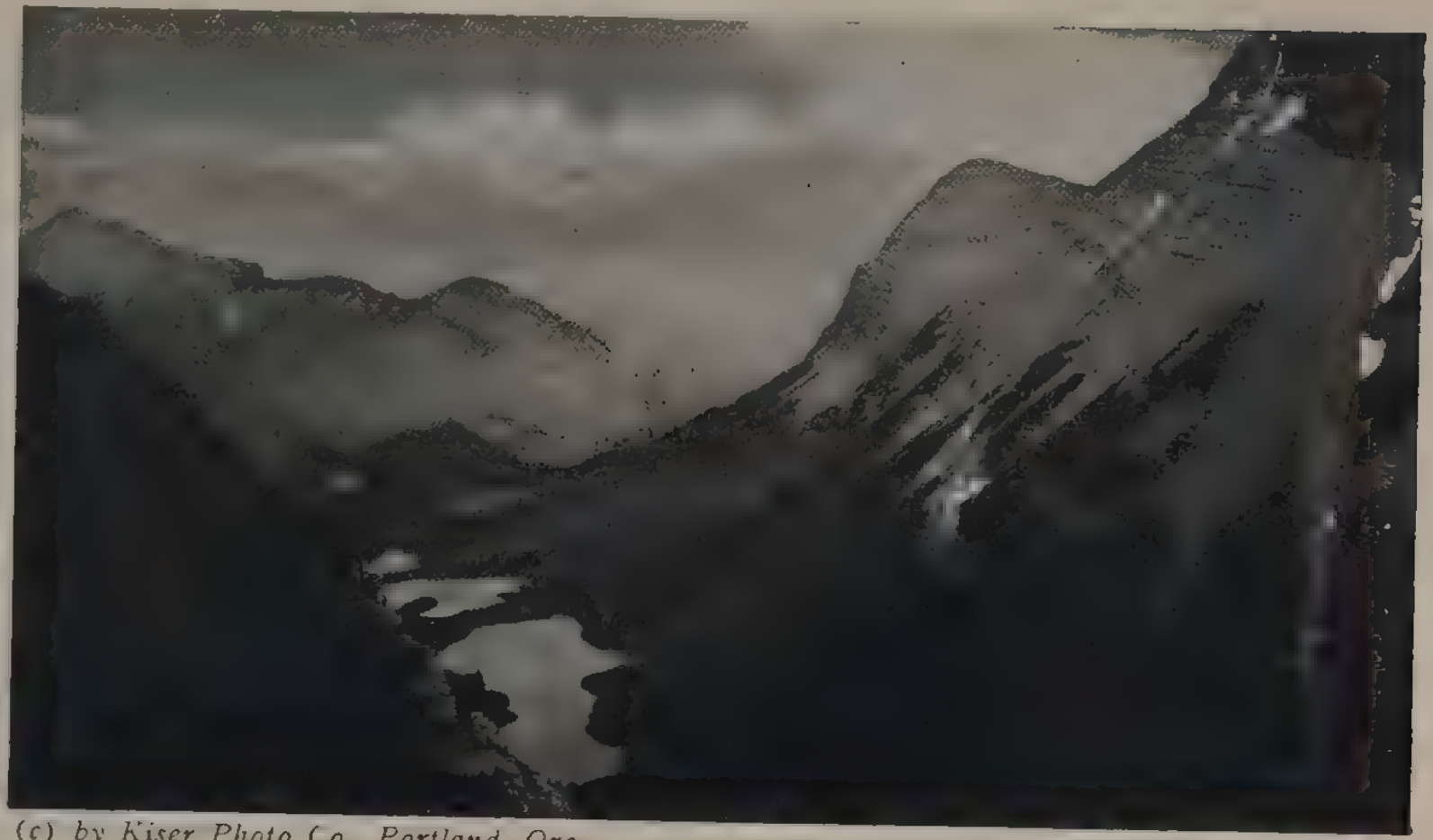
Camp Curry

Authorized rates at Camp Curry, beneath Glacier Point, on south side of valley, operated by the Curry Camping Co.

Board and lodging:

One person, per day	$ 2.75
One person, per week	17.50
One person, per four weeks	65.00
Children between 5 and 8 years of age, per day	2.00
Children between 3 and 5 years of age, per day	1.50
All children under 3 years of age, per day.	1.00
Guests desiring extra tent room will be charged as follows:	
Tent for four people, occupied by two people, per day extra, each	1.00
Tent for two people, occupied by one person, per day extra	1.00

Extra tent rates will be applied only between June 1 and Aug. 15.



(c) by Kiser Photo Co., Portland, Ore.

The heart of the Rocky Mountains, from the Trail on Swiftcurrent Pass, Glacier Park, Mont.

Breakfast	$0.50
Dinner or lunch	.75
Lodging	1.25
Meals in connection with lodging	.50

For a regular rate of $2.75 per day, 50 cents will be deducted for meals taken at the Glacier Point Hotel.

Meals sent to tents or served out of meal hours, 25 cents extra.

Tub and shower baths, each	.35
3 tickets for	1.00
5 tickets for	1.50
Plunge baths, including shower, together with use of bathing suit:	
1 ticket	.50
5 tickets	2.00
Moving-picture shows not to exceed per hour per person	.10
Dancing, per evening per couple, not to exceed	.25

Amusements

Swimming.—There are swimming pools at Yosemite Falls Camp and Camp Curry.

Boating.—The Desmond Park Service Co. has rowboats and launches for hire on Tenaya, Dog, Washburn, and Merced Lakes. Rates: Rowboats, first hour, 50 cents; each additional hour, 25 cents; per day, $2; launches, excursions, per hour, 8 persons or over, each person,

50 cents; exclusive use of launch, first hour, $3; each additional hour, $2; per day, $15. Over six hours, day rates are charged.

Fishing.—Persons desiring to fish in the waters of the Yosemite National Park must secure a sporting fishing license, as required by the laws of California. These laws provide that every person over the age of 18 years who obtains fish without first taking out a license is guilty of a misdemeanor. The license fees are as follows:

To the citizens of the United States who are bona fide residents of the State of California, $1.

To the citizens of the United States not bona fide residents of the State of California, and to persons not citizens of the United States, $3.

These licenses may be obtained from any county clerk, from the State board of fish and game commissioners, or at any hotel or camp in the park, or at the general store in Yosemite village. The main office of the State board of fish and game commissioners is located in the Mills Building, San Francisco, and branch offices are located as follows: Forum Building, Sacramento; Consolidated Realty Building, Los Angeles; Forsyth Build-

ing, Fresno. Every person applying for a license must give his residence, age, height, nationality, color of eyes and of hair. All fishing must be done in conformity with the State laws regarding open season, size of fish, and limit of catch.

Public Utilities and Conveniences

Information bureaus.—The National Park Service maintains an information bureau at the supervisor's office, in Yosemite, and those in charge will supply accurate information concerning points of interest, trails, camping facilities, camping locations, fishing places, etc.

An information bureau is also maintained by the Desmond Park Service Co. in the Transportation Building, Yosemite, but information can also be obtained at any of the hotels, camps, lodges or garages.

Medical service.—Yosemite Valley has among other conveniences a hospital building where medical and surgical service is provided under authority granted by the Secretary of the Interior. Two competent physicians and surgeons, with attendant nurses, are in

charge of the building and will promptly attend patients at any place within the park. Prices are regulated by the Secretary of the Interior.

Laundry.—Adequate laundry facilities are provided in the valley.

Telephone and telegraph.—Long distance telephone, Western Union and Wells Fargo service are available in Yosemite village. Telephonic communication may be had to all interior hotels, camps, and lodges, and long-distance and telegraph messages may be sent from interior points and delivered by telephone to such points.

Messenger service.—A messenger service is in operation between the telegraph office in the village and established camps on the floor of the valley. A charge of 25 cents is made for delivery of a telegram or package, or the performance of an errand from the village to a camp.

General store.—A general store and camp-rental depot is conducted in Yosemite village by the Desmond Park Service Co. A great variety of goods, clothing and other commodities, including toilet articles and proprietary

medicines, are kept in stock. A confectionary counter, soda fountain, and a curio section are among the departments of the store. The Yosemite post office is also located in the store.

Transportation Within the Park

There are several transportation lines operated under concessions from the Department of the Interior, but every person is at liberty to provide his own means of transportation, subject to regulations.

The authorized rates are as follows:

Between El Portal and Yosemite Valley

Authorized rates of the Desmond Park Service Co.

Between El Portal and Yosemite Valley, in either direction $2.50

Round trip, when purchased in connection with railroad ticket 4.50

Authorized rates of Big Trees Auto Stage Co.

From El Portal to Tuolumne Big Trees, thence to Yosemite Valley $7.50

From Yosemite Valley to Tuolumne Big Trees, thence to El Portal..... 7.50

Authorized rates of Big Trees Auto Stage Co. in conjunction with the Desmond Park Service Co.

From El Portal to Yosemite Valley, via Tuolumne Big Trees and return via El Portal road direct $10.00

From El Portal to Yosemite Valley, via El Portal Road direct and return via Tuolumne Big Trees $10.00

Between Merced and Yosemite Valley via Mariposa and Wawona

Authorized rates of Yosemite Stage & Turnpike Co.[1]

Merced and Yosemite, either direction, one way	$14.25
Merced and Yosemite, round trip	22.15
Wawona and Yosemite, either direction, one way	5.50
Wawona and Yosemite, round trip	9.50
Yosemite to Mariposa Big Trees and return to Wawona	7.25
Side trip, Chinquapin to Glacier Point and return	5.00

(In connection with above trips only. charge is additional to above-quoted rates.)

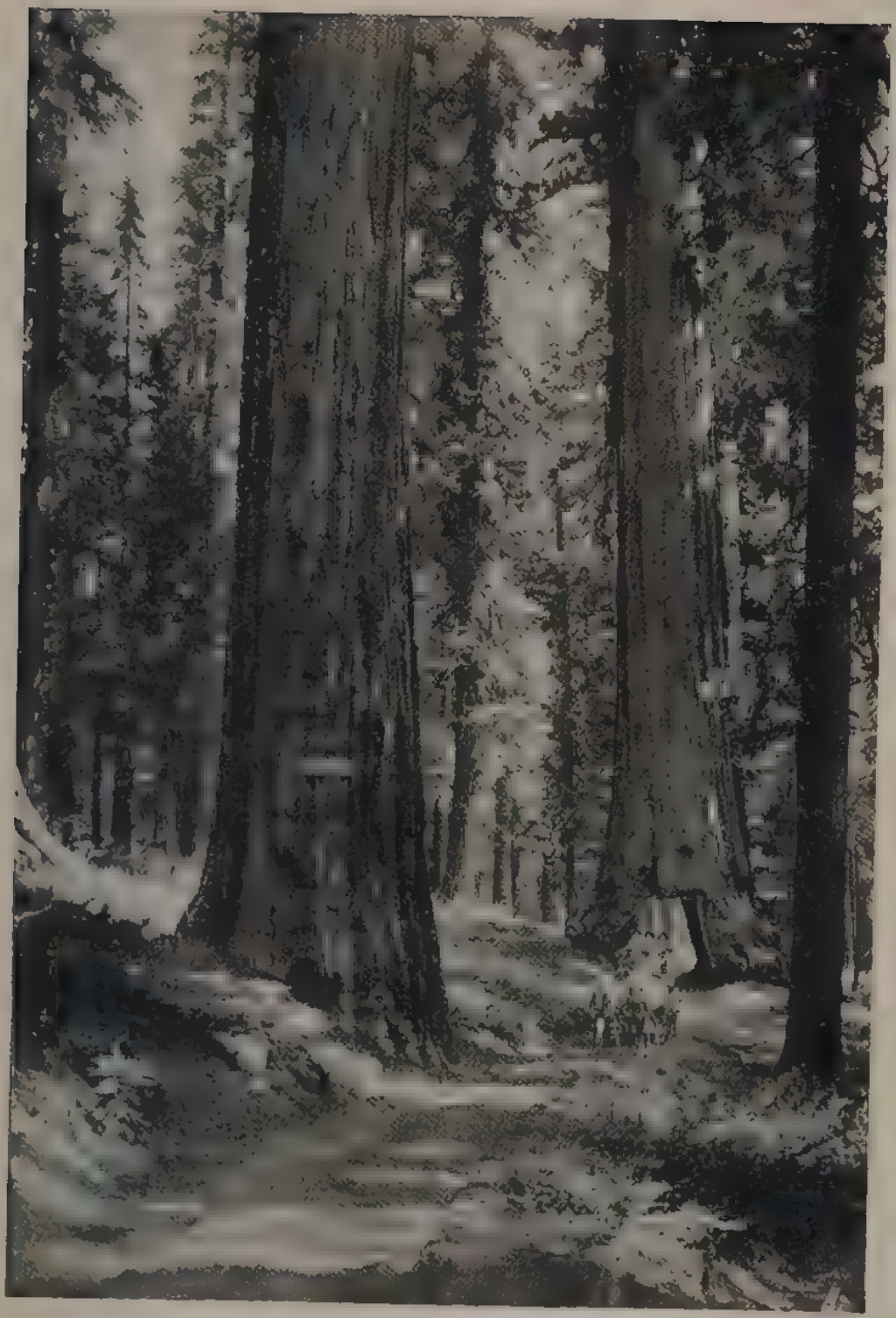
Sight-Seeing Automobile Trips

The following service will be maintained by the Desmond Park Service Co., starting from the Sentinel Hotel or any of the permanent camps, on floor of valley, contingent on four or more in party:

Rates for sight-seeing automobile trips.

To or from Happy Isles or Mirror Lake, one way	$0.75
Round trip via Happy Isles or Mirror Lake	1.25

[1] This company offers round trips from points outside of the park only. It is not engaged in the transportation of passengers between points in Yosemite Park. All of its trips either begin or end outside of the park limits.



On the road in the Mariposa Grove,
Yosemite Park.

To Bridal Veil Falls, one way.....$1.00
To Bridal Veil Falls, round trip..... 1.75
To Happy Isles, Mirror Lake, the village, Cathedral Rocks, Bridal Veil Falls, El Capitan, round trip 3.25
To Happy Isles, Mirror Lake, the village, Cathedral Rocks, Bridal Veil Falls, El Capitan, Artist and Inspiration Point, round trip... 4.50
To Artist Point and Inspiration Point, round trip 3.00
To Cascades, round trip..... 2.75
To New Inspiration Point, round trip..... 3.00

Galen Clark sight-seeing tour, round trip, $2, visiting the following points of interest: Yosemite Village, John Muir Studio, Big Tree Room, Sentinel Hotel, Artist Colors, Le Conte Lodge, Hutchins Orchard, Desmond Park Service Co.'s stables, where pack animals are being loaded for trails; bear pit; Indian village, where Yosemite Indians live; Galen Clark's retiring seat, foot of Yosemite Falls; Yosemite Falls Camp, with its entertainment plaza, swimming pool, bath house, and children's playground; El Capitan Camp, Grizzly Hotel under construction; epitaphs on tombstones at graves of Galen Clark and John Mason Hutchings; and viewing from floor of valley, Washington Columns, Royal Arches, North Dome, Half Dome, Eagle Peak, Glacier Point, and Yosemite Falls from Galen Clark's seat.

Automobile Tours

The following automobile tour rates will

apply from Yosemite Valley to points named on daily schedule, or at other times for parties of four or more.

Rates for automobile tours.

To Wawona, round trip, from valley	$ 9.50
To Mariposa Big Tree Grove and return to Wawona	7.75
To Mariposa Big Tree Grove, round trip, from valley	11.25
To Glacier Point, one way, from valley	5.50
To Glacier Point, round trip, from valley	9.50
To Tuolumne Big Trees, one way	2.50
To Tuolumne Big Trees, round trip	4.25
To Tenaya Lake via Tuolumne Big Trees, one way	8.75
To Tenaya Lake via Tuolumne Big Trees, round trip	15.25
To Soda Springs via Tuolumne Big Trees, one way	10.00
To Soda Springs via Tuolumne Big Trees, round trip	17.50
Glacier Point to Mariposa Big Tree Grove and return to valley	11.25
Glacier Point to Mariposa Big Tree Grove and return to Glacier Point	11.25
From valley to Mariposa Big Tree Grove via Glacier Point (overnight at Glacier Point), transportation only (hotel, usual rate) and return to valley	16.25
Glacier Point to Wawona, one way	5.50
Glacier Point to Wawona, round trip	9.50

Yosemite to Hetch Hetchy and return	$14.00
Yosemite to Hetch Hetchy, one way	8.00
Yosemite to Crocker's Sierra Resort and return to Yosemite	9.50
Yosemite to Crocker's Sierra Resort, one way	5.50

(NOTE.—Rates for one-way trips for less than four persons apply only when a car is bound in the direction desired. On above trips one piece of hand baggage weighing not to exceed 20 pounds will be carried free for each person.)

On all sight-seeing trips, children under 5 years of age held in lap will be carried free. If occupying seat, full fare will be collected.

Automobile Rental

Tourists desiring to rent private automobiles for special trips from Yosemite Valley to points of interest can secure six-passenger cars at $6 per hour from the Desmond Park Service Co. This service may be had only when cars are available without interrupting regular service, and such service is obtainable only for trips on floor of valley. Cars limited to six passengers.

All special automobile rates are based on an average running time of 12 to 15 miles per hour. No charge for time consumed as result of breakdown.

Rental rates for trips off of the floor of the valley will be considered special service, and rates will be made accordingly.

Day Automobile Bus Service

For passengers between village and established camps and hotels on floor of valley, or between camps, single trip, per person..... $0.25

Horseback Tours from Yosemite Valley

The following service will be maintained by the Desmond Park Service Co., and the rates given apply to round trips from hotel and camps in the Yosemite Valley: In regular parties of five or more, leaving on regular schedule time, rates for all horseback tours include service of guide free. For parties of less than five, $5 per day additional is charged for guide (provided, however, that the total charge for party of less than five shall not exceed $17.50), which price includes horse and meals for guide. Trips other than those given, or special service, will be subject to special arrangements.

One-day Tours

Rates for one-day tours cover only horse and guide:

Vernal and Nevada Falls..... $3.50
Vernal and Nevada Falls, Glacier Point and return, continuous 3.50

Vernal and Nevada Falls and Clouds Rest...	$3.50
Glacier Point and Sentinel Dome via Union Point (short trail)	3.50
Yosemite Point	3.50
Eagle Peak	3.50
North Dome via Mirror Lake and return via Yosemite Falls	3.50
Glacier Point, Sentinel Dome and Fissures, via Union Point (short trail)	3.50

Saddle Tours

Private Party Camping Tours

Throughout the park merchandise stores are prepared to furnish campers supplies at reasonable rates. Camp and traveling equipment may be rented or purchased at the Yosemite store at rates prevailing elsewhere for such commodities.

Tourists who travel with saddle horses from livery through the park are required to be accompanied by a competent and registered guide. One guide can ordinarily handle eight persons.

Pack horses are necessary on such trips for the purpose of carrying dunnage bags and extra clothing. One pack horse will suffice for a party of eight.

Rates for private party camping trips.

Saddle horses, per day, each	$3.50
Pack horses, per day, each	3.00
Guides, with horse, per day, each	5.00
Packers, with horse, per day, each	5.00
Cook, with horse, per day, each	5.00

When campers secure the service of cooks, guides, or packers separate from renting a complete outfit, they are required to furnish meals to such employees as accompany them when not stopping at one of the Desmond Park Service Co.'s camps, lodges, or hotels.

All-expense Camping Tours

The following prices are for complete outfits for trips for 10 days or more:

Rates for all-expense camping tours.

	Cost per day per person.		Cost per day per person.
1 person	$25.00	6 persons	$10.60
2 persons	15.75	7 persons	10.00
3 persons	12.65	8 persons	9.70
4 persons	12.40	9 persons	9.60
5 persons	11.30	10 persons or more.	9.50

Above rates include the necessary guides cooks, saddle horses, pack horses, provisions canvas shelters, cooking utensils, stoves and bedding.

Hikers' Tours with Camp, Hotel, or Lodge Accommodations

The walking tours are recommended to only those who are accustomed to tramping, although distances between the mountain camps are not great and can be easily covered in a day, thereby assuring the tourist a very comfortable bed and good, wholesome meals. Meals may be obtained at any of the lodges, thereby obviating the necessity of carrying anything except a small canteen of water and knapsack for such clothing as will be necessary.

Hikers' Tours—Camping

It is advisable for hikers to travel with pack mule. Bearing heavy equipment robs the camping trip of half of its joys. Pack animals may be rented at the rate of $3 per day.

It is necessary to employ a guide only when saddle animals are used.

The prospective camper may be fully equipped after arrival in the park. The store in Yosemite rents or sells tents, bedding, cooking utensils, outing clothes, fishing tackle—in a word, everything which goes to make camp-

ing a pleasure. Provisions can be obtained at any of the supply depots throughout the park.

Campers should pack their goods in dunnage bags, rather than in suit cases or grips, which are liable to be damaged while a trail trip is in progress. Dunnage bags may be rented in the park at a nominal rate.

A deposit is required on all equipment taken outside of Yosemite Valley and refunded upon return of equipment.

Camping Outfits for Valley Use

Tourists may rent their camping outfits at reasonable rates as indicated above. It is advisable in every instance that tourists desiring to camp in the park should have reserved the necessary equipment before arrival, as during the busy season tents are in great demand.

No charge is made for camp sites, which are assigned to campers by the supervisor of the park.

What to See

June is an ideal time to visit Yosemite National Park, for then the roads and trails are less dusty than later in the season, the de-

ciduous trees and shrubs are clothed in their freshest green, the woods and meadows are fragrant with wild flowers, and the waterfalls, the Park's greatest attraction, are at their full.

"I never knew any one to be disappointed in his first sight of the valley," says a California author;[1] "but there is one thing that generally surprises—that is its narrowness and the remarkable verticality of the enclosing walls. These stupendous cliffs shoot straight upward to a height of almost a mile (to be exact, from 3,000 to 5,000 feet) above the valley floor, which is itself 4,000 feet above the sea. As the Yosemite is only about three-quarters of a mile across at its broadest, it is, in fact, less a valley than a gorge — an incidental bulge some seven miles long in the wild, deep-cut canyon of the Merced River."

Yosemite Valley is the best known and most frequently visited portion of the Park, but although it is the most spectacular in the matter of scenic grandeur, it is by no means a proportionately large part of the whole.

Approaching from El Portal, at the ter-

[1] "Tenting and Footing It in the Yosemite," by Charles Francis Saunders. Travel. May, 1914.

minus of the Yosemite Valley Railroad, it is a drive of but 1¼ miles to the Park entrance. Six miles from El Portal is the first of the big sights of the valley, Cascade Falls (600 feet) on the north side of the Merced River. It is at Bridal Veil Meadows, a couple of miles farther on, that the traveler gets a first view of the greater part of the valley, an inspiring sight, with Bridal Veil Falls (620 feet) spilling its filmy waters on the right hand, and on the left the great cliff El Capitan rising sheer (3,588 feet) from the valley floor. A short distance beyond Bridal Veil Falls are the Three Graces, peaks which, though less lofty than El Capitan opposite, are impressive for their size and beauty. On the same (south) side of the river, a mile farther on, and almost directly opposite El Capitan, are Cathedral Spires, two pinnacles that are as aptly named as anything in the Park. One is 700 feet in height, while the other soars to 2,660 feet above the river. Across the river and 2½ miles farther east are those inseparable triplets, the Three Brothers, nearly 4,000 feet in height, which are a formation not unlike the Three Graces. The tallest of the Brothers

is known as Eagle Peak and can be reached by a trail.

Facing Three Brothers is a stupendous wall of granite which culminates in Sentinel Rock, a chimney-like peak 3,100 feet above the valley floor. Turning once again to the opposite side of the river, the traveler may see Yosemite Falls, of which Charles Francis Saunders says:

"This magnificent cataract holds first place among the important waterfalls of the world in the matter of height, being fifteen times as high as Niagara. It is the last leap of Yosemite Creek, bearing the dissolving snows of Mount Hoffman, eighteen miles away, to swell the Merced. First dropping sheer 1,500 feet without a break, then gathering breath in a precipitous 600-foot series of forming cascades, it makes a final plunge straight down 400 feet to the valley floor."

At this point in Yosemite Valley is the Sentinel Hotel, and, nearby, Camp Lost Arrow and Ahwahnee, reached after a drive of fourteen miles from the railroad station at El Portal.

From the hotel as a base there are numerous

trips that can be made, either by horseback or on foot, to the various wonder spots in the valley. The various distances from here to the principal points are as follows:

Distances from Yosemite Post Office to Principal Points in Yosemite Valley.

	Distance. Miles.	Direction.
Basket Dome (top of)	9.0	Northeast
Camp Ahwahnee	1.0	West
Camp Curry	1.0	East
Camp Lost Arrow	.5	North
Clouds Rest	11.0	East
El Capitan	3.5	West
Glacier Point	4.5	South
Glacier Point Hotel and Camp	4.5	South
Half Dome (foot of)	3.0	East
Happy Isles	2.5	East
Liberty Cap	5.5	East
Mirror Lake	3.0	East
Mount Watkins (top of)	9.0	East
Nevada Falls (594 feet)	6.0	East
North Dome (top of)	11.0	Northeast
Sentinel Rock	1.0	West
Tenaya Canyon	4.0	West
Union Point	3.0	South
Vernal Falls (317 feet)	5.0	East
Yosemite Falls (1,750 feet)	.5	North

A trip to the Mariposa Grove of big trees on the southern boundary of the Park should be the program of every visitor. It is 35½

miles from Yosemite, and there is a wagon road, so that one need not ride horseback to see these giants of the forest. The following table indicates the route, distances, and elevations:

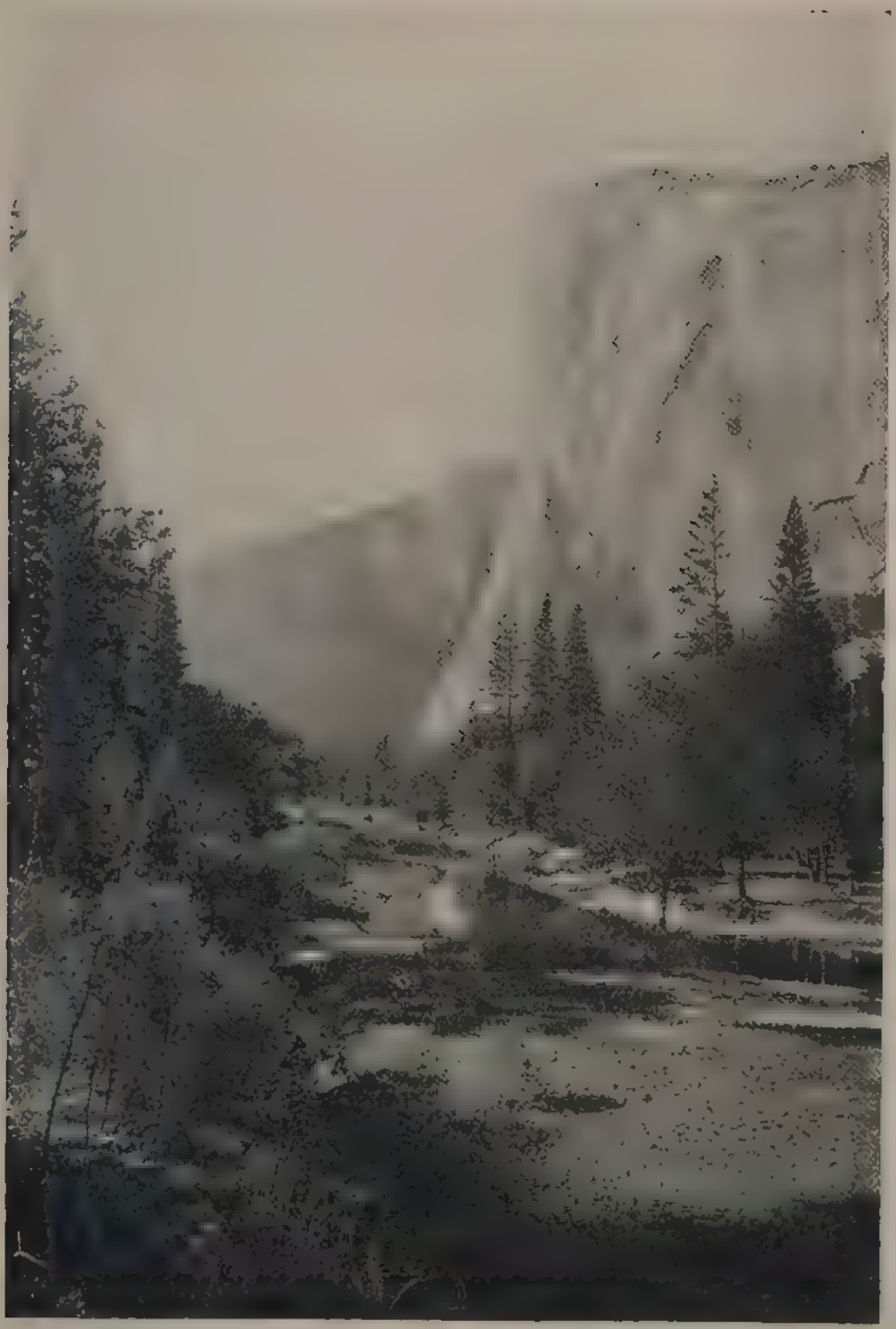
Yosemite to Mariposa Big Trees by Wagon Road, via Wawona.

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Yosemite			3,960
El Capitan Bridge	3.0	3.0	3,976
(Bridge across Merced River.)			
Bridal Veil Falls (620 feet)	1.0	4.0	3,960
Artists Point	2.0	6.0	4,701
(Beautiful view of the valley.)			
Inspiration Point	1.5	7.5	5,391
(From this point on the old Indian trail Yosemite was discovered in 1851.)			
Fort Monroe	.5	8.0	5,540
(Stage relay station.)			
Grouse Creek	2.5	10.5	5,500
(Stage relay station.)			
Chinquapin	4.0	14.5	6,256
(Stage relay station.)			
Elevenmile Station	2.0	16.5	6,000
(Stage relay station.)			
Eightmile Station			
(Stage relay station.)			

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Wawona ..... (Hotel; good camping and fishing.)	8.0	27.5	4,096
Big Tree Road Junction..... (Stage relay station.)	4.0	31.5	5,500
Mariposa Big Tree Grove..... (Largest grove of big trees in the world. Discovered by Galen Clark in 1857.)	4.0	35.5	6,000

The Mariposa Grove occupies an area of four square miles, and consists of two divisions called the Lower and Upper Groves. In the Lower Grove, which is reached first, there are about 240 examples of the *Sequoia gigantea,* the largest of all being the "Grizzly Giant," with a girth of 91 feet where it emerges from the ground. The first branch of this herculean tree is 125 feet up and is 6½ feet in diameter. In ascending to the Upper Grove, in which there are 360 big trees, the road goes under an arch cut directly through the 27-foot diameter of a living Sequoia. Many of the trees in Mariposa Grove are over 250 feet high, while the highest is 272 feet.

Arboreal monsters are found also in the



El Capitan, Yosemite Valley.

Merced and Tuolumne Groves of big trees, 21 and 18 miles respectively from Yosemite postoffice. They are located on the west-central boundary of the Park a few miles north of the latitude of Yosemite Valley, and can be reached by stage.

Yosemite to Merced Big Trees by Wagon Road, via Cascade Falls.

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Yosemite			3,960
Cascade Falls and junction of Coulterville Road	8.0	8	3,450
(Beautiful waterfalls close by the road leading to El Portal. Coulterville Road is direct road to Merced; distance, Yosemite to Coulterville, 50 miles; to Merced, 92 miles.)			
Big Meadows	4.0	12	4,500
(Meadowland owned by Myers and Mason.)			
Merced Grove of Big Trees	9.0	21	6,000
(Beautiful grove of Sequoias composed of about 40 trees. While the trees are not so large as those in the Mariposa Grove, they are well worth seeing.)			

To Hetch Hetchy Valley, in the northwestern corner of the Park, is a horseback trip of 31 miles from Yosemite by the shortest trail. The trail passes through a very beautiful part of the Park, and there is good camping at almost any point.

This valley has become celebrated in recent years on account of the agitation regarding its proposed mutilation for the benefit of San Francisco's water supply. It is a wonderfully beautiful counterpart of Yosemite Valley, and for those who can endure the discomforts of horseback riding and camping is eminently worth while.

Among the camping trips that may be taken from Yosemite are the following:

Yosemite to Soda Springs by Horse Trail via Vogelsang Pass.

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Yosemite			3,960
Nevada Falls	6.0	6.0	7,000
(Beautiful view from top of falls.)			

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Junction of Cloud's Rest and Soda Springs trail ..... (Good camping.)	5.52	11.52	7,000
Echo Creek ..... (Good fishing.)	5.0	16.52	8,000
Lake Merced ..... (Good fishing and camping.)	2.48	19.0	7,500
McClure Fork ..... (Good camping and fishing.)	3.0	22.0	9,000
Junction of Isberg Pass and Tuolumne Pass trails..... (No camping.)	4.0	26.0	9,000
Upper Crossing of McClure Fork (Can camp in August; before then feed is scarce.)	4.8	30.8	10,000
Fletcher Lake ..... (Good camping.)	1.5	32.3	10,000
Tuolumne Pass ..... (No camping.)	1.6	33.9	10,000
Evelyn Lake ..... (Poor camping.)	1.5	35.4	10,000
Junction of Lyell Fork of Tuolumne and Ireland Creek... (Excellent camping and fishing.)	3.0	38.4	9,000
Soda Springs ..... (Excellent camping and fishing.)	7.0	45.4	8,594

Yosemite to Soda Springs and Lyell Fork Meadows by Horse Trail via Nevada Falls.

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Yosemite			3,960
Top of Nevada Falls.....	6.0	6.0	7,000
Junction of Cloud's Rest trail....	3.52	9.52	7,167
Top of Sunrise Hill..... (Good camping.)	3.23	12.75	8,000
Divide at head of Cathedral Meadows ..... (Good camping.)	5.20	17.95	9,000
Junction of Tioga Road.....(Good camping and fishing.)	4.44	22.39	8,550
Soda Springs ..... (Good camping and fishing.)	1.0	23.39	8,594
Junction of Lyell and Dana Forks of Tuolumne..... (Good camping.)	.6	23.99	8,594
Head of Lyell Fork Meadows.... (Fine camping and excellent fishing.)	9.31	33.30	9,000

Yosemite to Soda Springs by Horse Trail via Yosemite Falls, Eagle Peak, and Yosemite Point Trail.

Yosemite			3,960
Junction of Eagle Peak trail.....	4.5	4.5	7,283
Junction of Yosemite Point trail..	.5	5.0	7,300
Porcupine Flat and junction of Tioga Road	7.5	12.5	8,066

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Tenaya Lake	8.0	20.5	8,146
Soda Springs	8.0	28.5	8,594

(Left-hand trail to Eagle Peak; right-hand trail to top of Yosemite Falls, where from a railing can be seen 1,600 feet of perpendicular waterfall, and a beautiful view of Yosemite Valley. The second left-hand trail leads to Yosemite Point, which affords a splendid view of Yosemite Valley and surrounding hills. There is good grazing and camping at Porcupine Flat, and good camping and fishing at Lake Tenaya and Soda Springs.)

Yosemite to North Dome by Horse Trail and Return via Yosemite Point.

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Yosemite			3,960
Mirror Lake	3.00	3.00	4,096
(Beautiful reflection.)			
Foot of trail in Tenaya Canyon	1.00	4.00	4,100
(Good fishing.)			
Junction of Lake Tenaya and North Dome trails	2.25	6.25	6,500
(Close to Snow Creek.)			
Junction of Tioga Road trail at top of divide	2.50	8.75	8,000
(Good camping close by.)			

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
North Dome ..... (Beautiful view of Yosemite Valley, Tenaya Canyon, and surrounding country. Very interesting point.)	2.75	11.50	7,531
Yosemite Point ..... (Beautiful view.)	3.50	15.000	6.935
Yosemite	4.50	19.50	
Yosemite to Lake Tenaya by Horse Trail and Return via Forsyth Pass and Clouds Rest.			
Yosemite			3,960
Mirror Lake ..... (Beautiful reflection.)	3.00	3.00	4,096
Junction of Lake Tenaya and North Dome Trails..... (Close to Snow Creek.)	3.25	6.25	6,500
Lake Tenaya ..... (Good camping; fair fishing.)	7.50	13.75	8,146
Forsyth Pass ..... (The only pass through which a horse trail could be built between Lake Tenaya and Clouds Rest to shorten the distance between these two interesting points.)	2.50	16.25	9,500
Clouds Rest ..... (Beautiful panorama.)	3.00	19.25	9,925
Nevada Falls ..... (Beautiful waterfall.)	5.00	24.25	7,000
Yosemite	6.00	30.25	3,900

Yosemite to Merced Lake and Washburn Lake by Horse Trail.[1]

	Distance between points. Miles.	Distance from Yosemite. Miles.	Elevation above sea level. Feet.
Yosemite			3,960
Nevada Falls	6.00	6.00	7,000
(Beautiful view from top of falls.)			
Junction of Lake Merced and Sunrise Trails	5.00	11.00	8,000
(Good camping.)			
Merced Lake	5.50	16.50	7,500
(Splendid camping and fishing.)			
Washburn Lake	4.50	21.00	7,640
(Splendid camping and fishing.)			

[1] Trip can be made from Lake Tenaya to Lake Merced by taking a branch connecting trail that leads off of the trail from Lake Tenaya to Clouds Rest and joins the Merced Lake Trail at its junction with the Sunrise Trail. This makes the distance between Lake Tenaya and Lake Merced about 11 miles.

IV.

ROCKY MOUNTAIN NATIONAL PARK

Rocky Mountain National Park, created by the act of January 26, 1915, and enlarged February 14, 1917, is located in Colorado, about 45 miles in an air line northwest of Denver. It has an area of approximately 255,000 acres, and is on both sides of the Continental Divide in the neighborhood of Longs Peak. Is is under the control and supervision of the Secretary of the Interior, who is represented in administration of the park by a supervisor, assisted by a number of park rangers who patrol the reservation. The address of the supervisor is Estes Park, Colo.

How to Reach the Park

Both sides of the park may be reached from Denver. The east gateway is Estes Park,

which is connected by the automobile stages of the Rocky Mountain Parks Transportation Co., with Denver as well as with the railway stations at Fort Collins, on the Colorado & Southern and the Union Pacific Railroads; Loveland, on the Colorado & Southern Railway; Lyons, on the Chicago, Burlington & Quincy Railroad; Ward, on the Denver, Boulder & Western Railroad; and Longmont on the Chicago, Burlington & Quincy and the Colorado Southern Railroads. The rate from Denver via rail or automobile to Lyons, Loveland, Fort Collins, Longmont, or Ward, thence automobile to Estes Park, is $5.50 one way, $9.60 round trip. The rate via automobile from Longmont, Lyons, Loveland, or Fort Collins to Estes Park is $3.50 one way, $7 round trip.

The west side of the park may be reached from Denver by way of Granby, on the Denver & Salt Lake Railroad; from Granby stages run to Grand Lake.

There has been some confusion about the name of Estes Park, which is a small village at one of the eastern entrances of Rocky Mountain National Park. Estes Park, however, has

come to signify a region, and is practically one with the greater park.

Transportation Within the Park—Automobile Rides

The Rocky Mountain Parks Transportation Co. conducts the following regular sight-seeing trips from Estes Park, Colo., into the park:

The Fall River Road drive, approximately 20 miles	$3.00
The Fall River Road and Highdrive, approximately 24 miles	3.50
Longs Peak Inn or Highdrive	2.00
Longs Peak Inn or Highdrive and Fall River Road	5.50

Horseback and Camping Outfits

At Estes Park and the smaller settlements near, and at Grand Lake, horses and camp outfits may be had at reasonable rates. Estes Park, with its many hotels, is especially well equipped with conveniences for those wishing to climb the mountains. There is much horseback riding throughout the entire district, and this is the best method of seeing the country within the borders of Rocky Mountain National Park, for there are comparatively few roads in this mountainous region.

Resorts and Hotels

The following hotels are located in or near the park; post-office address, Estes Park, Colo.:

Longs Peak Inn:	
Board and lodging—	
Single rooms, per week	$19.00–$42.00
Two in double rooms, each, per week	15.00– 35.00
Single meals	.75– 1.25
Shelter Cabin, Longs Peak:	
Meals	.75
Lodging	1.00
Sprague's Resort:	
Board and lodging—	
Two in room, each, per week	17.50
Two in room, each, per month	56.00
One in room, per week	20.00
One in room, per month	75.00
Regular dinner	1.00
Special dinner, fish or chicken, midday or evening	1.25
Breakfast or supper	.75
The Brinwood:	
Board and lodging—	
Per day	3.00– 4.50
Per week	14.00– 22.50
Horseshoe Inn:	
Board and lodging—	
Room with private bath, two in room, each, per day	4.50

Room with private bath, one in room, per day	$6.00
Suite of two rooms, bath between, two in room, each, per day	4.00
Suite of two rooms, bath between, one in room, per day..	5.00
Rooms with running hot and cold water, one in room, per day	4.00
Rooms with running hot and cold water, two in room, each, per day	3.50
Cottages, two in room, each, per day	3.00
Cottages, one in room, per day.	3.50
Tent rooms, double, each, per day	2.75
Tent rooms, single, per day....	3.00
Room with private bath, two in room, each, per week.....	25.00
Room with private bath, one in room, per week	30.00
Suite of two rooms, bath between, two in room, each, per week	22.00
Suite of two rooms, bath between, one in room, per week.	27.00
Best rooms with running hot and cold water, two in room, each, per week	19.00
Best rooms with running hot and cold water, one in room, per week	22.00

Other rooms with running hot and cold water, two in room, each, per week	$17.00
Other rooms with running hot and cold water, one in room, per week	20.00
Cottages, two in double, each, per week	16.00
Cottages, single, per week	20.00
Tent rooms, two in double, each, per week	14.00
Tent rooms, single, per week	17.00
Lawn Lake Resort, Bradley & Patrick, proprietors:	
Meals	.75
Lodging	1.00
Hewes-Kirkwood:	
Board and lodging—	
Tents, per week	16.50
Cabins, per week	20.00
Do	21.00
Do	[1] 22.50
Day rates	4.00
Children under 7 years, half price.	
The Columbines, C. H. Alexander, manager:	
Board and room, per week	$15.00– 22.00
Regular meals	.75
Special chicken dinner	1.00
Fern Lodge, Byerly & Rogers, proprietors:	
Board and lodging—	
One in room, per day	3.50

[1] And up.

One in room, per week	$23.00
One in room, per month	85.00
Two in room, each, per day....	3.00
Two in room, each, per week..	20.00
Two in room, each, per month.	75.00
Horse feed—	
Hay and grain	.50
Grain only	.35

The Pool, Byerly & Rogers, proprietors:

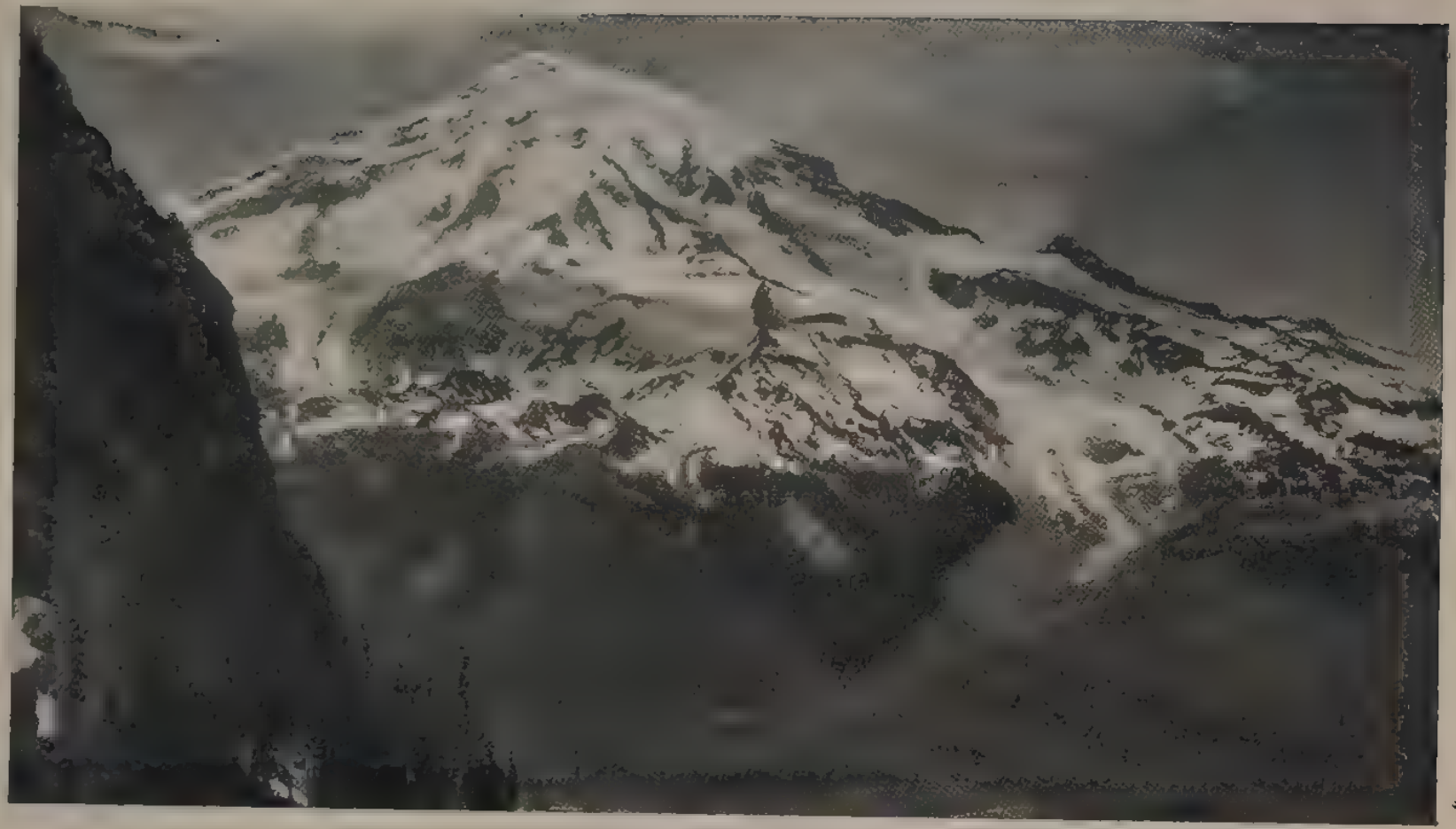
Board and lodging—	
One in room, per day	3.50
One in room, per week	23.00
One in room, per month	85.00
Two in room, each, per day....	3.00
Two in room, each, per week..	20.00
Two in room, each, per month.	75.00
Horse feed—	
Hay and grain	.50
Grain only	.35

Bear Lake:

Board and lodging—	
One in room, per day	3.50
One in room, per week	23.00
One in room, per month	85.00
Two in room, each, per day....	3.00
Two in room, each, per week..	20.00
Two in room, each, per month.	75.00
Horse feed—	
Hay and grain	.50
Grain only	.35

Fall River Lodge:

Board and room, per day.....	2.50– 5.00
Board and room, per week.....	14.00– 30.00



Mount Rainier as seen from Eagle Peak, Mount Rainier Park.

Moraine Lodge, Mrs. W. D. McPherson, proprietress:
Board and lodging—
Per day ..... [1] $3.00
Per week ..... [1] 14.00

Elkhorn Lodge:
Board and room, per day..... [1] 3.00
Board and room, per week..... 12.00– 20.00

Hupp Hotel:
Board and room, per day..... 3.00
Board and room, per week..... 12.00– 15.00

Lester Hotel:
Board and room, per day..... [1] 2.50
Board and room, per week..... 14.00– 20.00

Rockdale Hotel:
Board and room, per day..... [1] 3.00
Board and room, per week..... 15.00– 22.50

Steads Ranch and Hotel:
Board and room, per day..... [1] 2.50
Board and room, per week..... 12.00– 20.00

Stanley Hotels:
Board and room, per day..... [1] 4.00
Board and room, per week..... 28.00– 84.00

Estes Park Hotel:
Board and room, per day..... [1] 2.50
Board and room, per week..... 10.00– 14.00

The Crags Hotel:
Board and room, per day..... [1] 3.00
Board and room, per week..... 14.00– 25.00

[1] And up.

Lewiston Hotel:

Board and room, per day.....	[1] $3.50
Board and room, per week.....	20.00– 40.00

Brown Tea Pot (American and European plans):

Per day	[1] 3.50
Per week	20.00– 35.00

Hotels at Grand Lake on the west side.

Lehmans Hotel, $2 a day.
Langles Hotel, $2 a day.
Kauffman House, $2.50 a day.
Narwata Hotel, $2.50 a day.
The Rapid Hotel, $2.50 a day.

What to See

There is probably no other scenic neighborhood of the first order which combines mountain outlines so bold with a quality of beauty so intimate and refined. Just to live in the valley in the eloquent and ever changing presence of these carved and tinted peaks is itself satisfaction. But to climb into their embrace, to know them in the intimacy of their bare summits and their flowered, glaciated gorges, is to turn a new and unforgetable page in human experience.

[1] And up.

This national park is certainly very high up in the air. The summer visitors who live at the base of the great mountains are 8,000 feet, or more than a mile and a half, above the level of the sea; while the mountains themselves rise precipitously nearly a mile, and sometimes more than a mile, higher still. Longs Peak, the biggest of them all, rises 14,255 feet above sea level, and most of the other mountains in the Snowy Range, as it is sometimes called, are more than 12,000 feet high; several are nearly as high as Longs Peak.

The valleys on both sides of this range and those which penetrate into its recesses are dotted with parklike glades clothed in a profusion of glowing wild flowers and watered with cold streams from the mountain snows and glaciers. Forests of pine and silver-stemmed aspen separate them.

The range lies, roughly speaking, north and south. The gentler slope is on the west. On the east side the descent from the Continental Divide is precipitous in the extreme. Sheer drops of two or three thousand feet into rock-bound gorges carpeted with snow patches and wild flowers are common. Seen from the

east side valleys this range rises in daring relief, craggy in outline, snow spattered, awe inspiring.

In the northeast corner, separated from the Continental Divide by the Fall River Canyon, lies a tumbled majestic mountain mass which includes some of the loftiest peaks and the finest glaciers.

To the south of Longs Peak the country grows even wilder. The range is a succession of superb peaks. The southern park boundary unfortunately cuts arbitrarily through a climatic massing of noble snow-covered summits. The St. Vrain Glaciers, with their surrounding ramparts, a spectacle of grandeur, lie outside the park and, still farther below, the Continental Divide grows in splendor to Arapaho Peak and its glacier.

The west side, gentler in its slopes and less majestic in its mountain massings, is a region of loveliness and wildness diversified by splendid mountains, innumerable streams, and lakes of great charm. Grand Lake, which has railroad connections near by, is the largest and deepest lake in the park. It is the center of a growing cottage and hotel population, and is

destined to become a center of much importance upon the completion of the Fall River Road, which will connect the east and west sides across the Continental Divide.

Until the creation of the Rocky Mountain National Park there was little in common between the settlements on the east and on the west sides. The difficult trails over the divide were crossed by few. The projection of the Fall River Road by the State of Colorado sounded the note of common interest. The energetic prosecution of this road, and the improvement of trails and the building of new trails by the Department of the Interior, will work the rapid development of the entire region.

One of the remarkable features of the Rocky Mountain National Park is the legibility of the record left by the glaciers during the ages when America was making. The evidences of glacial action, in all their variety, make themselves apparent to even the most casual eye.

In fact, there is scarcely any part of the eastern side where some great moraine does not force itself upon the attention. One enormous moraine built up by ancient parallel

glaciers and rising with sloping sides a thousand feet and more above the surrounding valley is so prominent that a village is named for it. From Longs Peak on the east side the Mills Moraine, named after Enos Mills, who is known locally as "the father of the Rocky Mountain National Park," makes a bold curve which instantly draws questions from visitors.

In short, this park itself is a primer of glacial geology whose lessons are so simple, so plain to the eye, that they immediately disclose the key to one of nature's chiefest scenic secrets.

Just at timber line, where the winter temperature and the fierce icy winds make it impossible for trees to grow tall, the spruces lie flat on the ground like vines; presently they give place to low birches, which, in their turn, give place to small piney growths, and finally to tough straggling grass, hardy mosses, and tiny Alpine flowers. Grass grows in sheltered spots even on the highest peaks, which is fortunate for the large curve-horned mountain sheep, which seek these high, open places to escape their special enemies, the mountain lions.

Even at the highest altitudes gorgeously colored wild flowers grow in glory and profusion in sheltered gorges. Even in late September large and beautiful columbines are found in the lee of protecting masses of snow banks and glaciers.

Nowhere else is the timber-line struggle between the trees and the winds more grotesquely exemplified or its scene more easily accessible to tourists of average climbing ability. The first sight of luxuriant Engelmann spruces creeping closely upon the ground instead of rising a hundred and fifty feet or more straight and true as masts arouses keenest interest. Many trees which defy the winter gales grow bent in half circles. Others, starting straight in shelter of some large rock, bent at right angles where they emerge above the rock. Others which have succeeded in lifting their heads in spite of winds have not succeeded in growing branches in any direction except in the lee of their trunks, and suggest big evergreen dust brushes rather than spruces and firs.

Still others which have fought the winter's gales for years are twisted and gnarled beyond description—like dwarfs and gnomes of an

aboreal fairyland. Others yet, growing in thick groups, have found strength in union and form low, stunted groves covered with thick roofs of matted branches bent over by the winds and so intertwined that one can scarcely see daylight overhead—excellent shelter for man or animal overtaken by mountain-top storms.

These familiar sights of timber line are wonderfully picturesque and interesting. They never lose their charm, however often they may be seen.

Above timber line the bare mountain masses rise from one to three thousand feet, often in sheer precipices. Covered with snow in autumn, winter, and spring, and plentifully spattered with snow all summer long, the vast, bare granite masses, from which, in fact, the Rocky Mountains got their name, are beautiful beyond description. They are rosy at sunrise and sunset. During fair and sunny days they show all shades of translucent grays and mauves and blues. In some lights they are almost fairylike in their delicacy. But on stormy days they are cold and dark and forbidding, burying their heads in gloomy clouds

from which sometimes they emerge covered with snow.

Often one can see a thunderstorm born on the square granite head of Longs Peak. First out of the blue sky a slight mist seems to gather. In a few moments, while you watch, it becomes a tiny cloud. This grows with great rapidity. In five minutes, perhaps, the mountain top is hidden. Then, out of nothing, apparently, the cloud swells and sweeps over the sky. Sometimes in 15 minutes after the first tiny fleck of mist appears it is raining in the valley and possibly snowing on the mountain. In half an hour more it has cleared.

Standing on the summits of these mountains the climber is often enveloped in these brief-lived clouds. It is an impressive experience to look down upon the top of an ocean of cloud from which the greater peaks emerge at intervals. Sometimes the sun is shining on the observer upon the heights while it is raining in the valleys below. It is startling to see the lightning below you.

One of the striking features of the Rocky Mountain National Park is the easy accessibility of these mountain tops. One may mount a

horse after early breakfast in the valley, ride up Flattop to enjoy one of the great views of the world, and be back for late luncheon. The hardy foot traveler may make better time than the horse on these mountain trails. One may cross the Continental Divide from the hotels of one side to the hotels of the other between early breakfast and late dinner.

In fact, for all-around accessibility there surely is no high mountain resort of the first order that will quite compare with the Rocky Mountain National Park. Three railroads to Denver skirt its sides and Denver is only 30 hours from Chicago.

This range was once a famous hunting ground for large game. Lord Dunraven, a famous English sportsman, visited it yearly to shoot its deer, bear, and bighorn sheep, and once he tried to buy it for a private game preserve. Now that the Government has made it a national park the protection offered its wild animals will make it in a few years, one of the most successful wild animal refuges in the world.

These lofty rocks are the natural home of the celebrated Rocky Mountain sheep, or big-

horn. This animal is much larger than any domestic sheep. It is powerful and wonderfully agile. When fleeing from enemies, these sheep, even the lambs, think nothing of dropping off precipices apparently many hundreds of feet high, breaking the fall at short intervals, of course, upon friendly ledges. They do not land on their curved horns, as many persons declare, but upon their four feet held close together. Landing on some near-by ledge, which breaks their fall, they immediately plunge again downward to another ledge, and so on till they reach good footing in the valley below. They also ascend slopes surprisingly steep.

They are more agile even than the celebrated chamois of the Swiss Alps, and are larger, more powerful, and much handsomer. It is something not to be forgotten to see a flock of a dozen or 20 mountain sheep making their way along the blown-out volcanic crater of Specimen Mountain in the Rocky Mountain National Park.

The greatest of all these mountains, Longs Peak, has a great square head towering above everything else. It is a real architectural struc-

ture like an enormous column of solid rock buttressed up on four sides with long rock ledges. On the east side a precipice of 2,000 feet drops sheer from the summit into the wildest lake that one can possibly imagine. It is called Chasm Lake, and there is only one month in the year when its surface is not, partially at least, frozen. Mount Meeker and Mount Lady Washington inclose it on the south and north, and snow fields edge its waters the year round. There is another lake known as Iceberg Lake in which small icebergs float all summer long.

A distinguished feature of the Rocky Mountain National Park is its profusion of precipice-walled canyons lying between the very feet, so to speak, of the loftiest mountains. Their beauty is romantic to a high degree. Like all the other spectacles of this favored region they are readily accessible from the valley villages by trail, either afoot or on horseback.

Usually several lakes are found, rock embedded, in such a gorge. Ice cold streams wander from lake to lake watering wild flower gardens of luxuriance and beauty.

There are few wilder and lovelier spots, for instance, than Loch Vale, 3,000 feet sheer below Taylor Peak. Adjoining it lies Glacier Gorge on the precipitous northern slope of Longs Peak and holding in its embrace a group of Lakelets.

These, with lesser gorges cradling romantic Bear Lake, almost inaccessible Dream Lake, beautiful Fern Lake, and exquisite Odessa Lake, and still others yet unnamed, constitute the Wild Garden of the Rocky Mountain National Park, lying in the angle north of Longs Peak; while, in the angle south lies a little known wilderness of lakes and gorges known as the Wild Basin.

Although as many as 50,000 persons, have, in a single summer, visited the valleys at the foot of these mountains, comparatively few have yet enjoyed their heights and their fastnesses. This is because of the absence of roads and well-developed trails.

When these are provided, this region, because of its accessibility and the favorable living conditions of its surrounding valleys, is destined to become one of the most popular mountain resorts in the world.

The Mountain Peaks

Front Range peaks following the line of the Continental Divide, north to south.

A little west of the divide.	On the Continental Divide.	A little east of the divide.	Altitude in feet.
	Specimen Mt.		12,482
Shipler Mt.			11,400
	Mount Ida		12,725
		Terra Tomah Pk	12,686
		Mount Julian	12,928
Nakai Peak			12,221
		Stones Peak	12,928
	Flattop Mt.		12,300
	Hallett Peak		12,725
	Otis Peak		12,418
	Taylor Peak		13,150
		Thatchtop	12,600
	McHenrys Pk.		13,200
		Storm Peak	13,335
		Chiefs Head	13,579
		Pagoda	13,491
		Longs Peak	14,255
		Mount Lady Washington	13,269
		Mount Meeker	13,911
	Mount Alice		13,310
Andrews Peak			12,564
	Tanina Peak		12,417
Mount Craig			12,005
		Mahana Peak	12,629
	Ouzel Peak		12,600
Mount Adams			12,115
		Mount Copeland	13,176
		Estes Cone	11,017
		Battle Mt.	11,930
		Lookout	10,744
		Mount Orton	11,682
		Meadow Mt.	11,634

Peaks of the Mummy Range northeast of the Continental Divide from Fall River, north.

	Altitude, in feet.
Mount Chapin	12,458
Mount Chiquita	13,052
Ypsilon Mountain	13,507
Mount Fairchild	13,502
Mummy Mountain	13,413
Hagues Peak	13,562
Mount Dunraven	12,548
Mount Dickinson	11,874
Mount Tileson	11,244
Big Horn Mountain	11,473
McGregor Mountain	10,482

Peaks in the Grand Lake Basin.

Snowdrift Peak	12,280
Nakai Peak	12,221
Mount Patterson	11,323
Mount Bryant	11,000
Mount Cairns	10,800
Nisa Mountain	10,791
Mount Enentah	10,737
Mount Wescott	10,400
Shadow Mountain	10,100

The above tables show that there are 51 named mountains within the park that reach altitudes of over 10,000 feet, as follows:

Over 14,000 feet	1
Between 13,000 and 14,000 feet	13
Between 12,000 and 13,000 feet	20
Between 11,000 and 12,000 feet	10
Between 10,000 and 11,000 feet	7

V.

MOUNT RAINIER NATIONAL PARK

Less than one-third the size of Yosemite, Mount Rainier, Washington, is none the less a national park of appreciable magnitude and surpassing beauty. It has an area of 207,360 acres, and includes Mount Rainier and all its approaches.

The latest report gives the corrected height of Mount Rainier as 14,408 feet; but 93 feet less than Mount Whitney, which is the highest peak in the United States. The latter, however, merely marks the culminating point in a ridge, while Mount Rainier is a solitary peak, and for that reason is far more imposing.

From it radiates one of the greatest systems of glaciers in the world; said to be greater than that of the whole Swiss Alps. Surrounding the mountain are beautiful forests of fir and cedar, and in the natural parks below the

snow line are luxuriant fields of flowers. (One botanist has listed 360 species that are found within the park borders.)

The tourist season is from June 1 to September 30, but winter parties can be arranged for.

How to Reach the Park

The southern portion of Mount Rainier National Park, which is the most accessible to tourists is reached by rail from Seattle and Tacoma to Ashford, 6½ miles from the entrance, via a branch line[1] of the Chicago, Milwaukee and St. Paul Railway, and thence by automobile stage line to Longmire Springs, 13 miles in all. The trip from Seattle to the National Park Inn takes about six hours; from Tacoma an hour less. The round trip fare from Tacoma is $7.

Seattle and Tacoma are reached from the east by the Chicago, Milwaukee & St. Paul, Great Northern, and Northern Pacific Railways; from the south by the Southern Pacific and Union Pacific System.

The northern part of the Park can be reached by rail to Fairfax, Wash.,[2] on the

[1] The Tacoma Eastern Railroad.
[2] Nine miles from the park boundary.

Northern Pacific Railway, from which point trails only are available for the traveler.

Accommodations and Transportation—Costs

The hotels and camps mentioned below are for the most part operated under concessions from the Department of the Interior, but the visitor who has occasion to use others will be reasonably sure of fair treatment in the matter of charges.

National Park Inn (at Longmire Springs)—Board and lodging, per day: one person in room, $3.50; two persons in room, $3.00 each; one person in tent, $3.00; two persons in tent, $2.50 each. Ten per cent. discount for stay of week or longer.

Lodging, per day: rooms, according to number of occupants, $1.00-$1.50; tents, according to number of occupants, $0.50-$1.00.

Meals: dinner, 75 cents; lunch, 50 cents; breakfast, 75 cents.

Paradise Inn (in Paradise Valley)—American plan, per day, $3.50 and up; European plan, room or bungalow tent accommodation, per day, 75 cents to $1.00 and up, meals a la carte.

New Paradise Camp (west of the Inn)—Operation of this camp will be planned so that patrons may

live in any way they choose. A lunch pavilion will provide meals a la carte, or patrons may bring their own food supplies and prepare them on the large cook-furnace furnished free for their use. (Further information regarding the foregoing can be had from Rainier National Park Co., Tacoma, Wash.)

CAMP AT HENRY'S HUNTING GROUND—Board and lodging per day, $2.50; bed, 75 cents; meals, 75 cents; board per week, $15.00.

CAMP AT NISQUALLY GLACIER—Sleeping accommodations for one person in single tent, per day, $1.00; one person in half of bungalow tent, per day, $1.00; two persons in single tent or half of bungalow tent, per day, 75c. each.

LONGMIRE HOTEL (at Longmire Springs)—This hotel is on patented land just opposite the National Park Inn, and its rates are not subject to Government regulation. Per day, from $2.50 up; special weekly rates.

Auto stage service from Ashford to points within the park.

The Rainier National Park Co., post-office address Tacoma, Wash., will operate 12 passenger auto stages from Ashford to points within the National Park, this service to con-

nect with the trains of the Chicago, Milwaukee & St. Paul Railway Co. Rates are as follows:

	One way.	Round trip.
Between Ashford and park entrance.....	$0.75	$1.00
Between Ashford and Longmire Springs.	1.50	2.00
Between Ashford and Nisqually Glacier..	2.25	3.00
Between Ashford and Narada Falls.....	3.00	4.00
Between Ashford and Paradise Valley...	3.75	5.00

There is at present but one automobile-road entrance to this portion of the park. This road leads out from Tacoma, Seattle, Olympia, and other Puget Sound cities, and for the greater distance from those cities is a highly improved thoroughfare, to the park entrance, where it joins the Government road in the park. The distance from Tacoma is 57 miles and from Seattle 96 miles.

Auto stage service from Tacoma and Seattle to Mount Rainier National Park.

The Rainier National Park Co. will operate regular daily automobile service from Ta-

[1] For transportation, within the park, see p. 16.

coma and Seattle to points within the park at the following rates:

	One way.	Round trip.
From Tacoma to Longmire Springs	$4.00	$7.00
From Tacoma to Nisqually Glacier	4.75	8.00
From Tacoma to Narada Falls	5.50	9.00
From Tacoma to Paradise Valley	6.25	10.00
From Seattle to Longmire Springs	5.00	9.50
From Seattle to Nisqually Glacier	6.00	10.50
From Seattle to Narada Falls	7.00	11.50
From Seattle to Paradise Valley	8.00	12.50

Transportation Within the Park—Auto Stage Service

Park headquarters of the Rainier National Park Co. are located at Longmire Springs. Rates quoted are "between stations," as the same charge is made in either direction.

Auto stage rates within park limits.

	One way.	Round trip.
Between Longmire Springs and park entrance	$0.75	$1.50
Between Longmire Springs and Nisqually Glacier	.75	1.00
Between Longmire Springs and Narada Falls	1.50	2.00
Between Longmire Springs and Paradise Valley	2.25	3.00

Automobile Service

Standard seven-passenger touring cars will be furnished for the exclusive use of private parties at the following rates per passenger; minimum of four fares for this special car service:

Automobile rates within park limits.

	One way.	Round trip.
Between Longmire Springs and park entrance	$1.00	$2.00
Between Longmire Springs and Nisqually Glacier	1.00	2.00
Between Longmire Springs and Narada Falls	1.75	3.00
Between Longmire Springs and Paradise Valley	2.50	4.00

Horses and Guides

The Rainier National Park Co. will maintain adequate saddle and pack horse service for park trails. Arrangements for this service should be made at the company's office, Longmire Springs. For parties of five or more guide and horse will be furnished without charge. For parties of less than five a charge

of $3.50 per day will be made for guide and horse. Following are the authorized rates:

Rates for saddle and pack horse and guide service.

Saddle horse and equipment, per day	$3.50
Pack horse and equipment, per day	3.50
Guide and horse per day for less than 5 in party	3.50
Saddle horse and equipment, between Narada Falls and Paradise Valley, round trip	1.50
Saddle horse and equipment, between Narada Falls and Paradise Valley, one way	1.00

Guide Service—Special Trips

The three most popular trips in the National Park requiring guide service are: (1) Climb to the summit, (2) climb to Pinnacle Peak, (3) what is generally called the "side trip." This is from Paradise Valley to Stevens and Paradise Glaciers.

The summit climb requires from 15 to 20 hours for the round trip. Only those accustomed to climbing and in practice should attempt the journey. Guides to the summit will be supplied at the rate of $10 per person in parties of not less than five persons, or minimum charge of $50 for each ascent, with an addi-

tional charge of $2.50 per person added for clothing and equipment.

The Pinnacle Peak climb requires from six to eight hours for the round trip. Guides for this trip will be supplied at the rate of $4 per person, including clothing and equipment, with a minimum of three persons, or $12 for the trip.

The side trip to Stevens and Paradise Glaciers requires four or five hours for the round trip. Guides will be supplied for this trip at the rate of $1.50 per person, including clothing and equipment.

What to See

From Ashford, whence runs the only wagon-road entrance to the Park, to the National Park Inn, is a drive of 13 miles through the forest. Half-way to the inn is the Park entrance — four huge rough logs stood upright and joined together by others, and cross-beams of the same sort laid parallel on top. Just inside the gate is a log house where the park superintendent keeps a register of all who enter.

The narrow road runs cathedral-wise

through a forest of great trees, some of which exceed in height the giants of Sequoia and General Grant Parks, California. To stand at the base of one of them and look toward the top gives precisely the same impression as standing at the front door of the Woolworth building and trying to see the fifty-fifth story. And when, branchless for seventy-five feet above the ground, their tops are hazed and feathery in the moonlight, they call to mind the paintings of Maxfield Parrish and make them seen like rank realism in comparison. To traverse this stretch of road in the full of the moon is to live a Grimm's fairy tale. A man with half an imagination can see sprites and elfins, and ogres and giants a quarter way up those great sticks of timber.

The visitor may have an excellent view of Mount Rainier from the Inn porch. As one looks upon the solitary peak lifting its head nearly three miles into the sky, seamed with age-old glaciers that swerve sinuously down its sides, scarred with great outcropping rocks, bidding defiance to time — he does not wonder that the Indians called it "the mountain that was God!"

If you number horseback riding among your accomplishments, you will have a distinct asset to your capacity for enjoying the Park; but if you have never sat astride a horse before, do not let that (comparatively) unimportant consideration deter you from making the trips that cannot be taken otherwise than by pony trail. Ask the man for a cayuse that has a soft spot in his heart for a tenderfoot, and then trust — the animal. He knows the trail and is careful on his own account, if not for yours.

It is seven miles to Indian Henry's Hunting Ground, and the trip in one direction takes about four hours. The beginning of the trail is a few hundred feet from the Inn, and it starts to ascend at once. You plunge directly into the deep heart of the forest, where the cool air comes straight from being filtered through the pine boughs, and is different from anything you ever breathed before. It is very quiet in here, or so it seems at first, and the principal sound is the thud of the ponies' hoofs on the soft earth. Presently you will hear the birds calling in the high branches of the trees, or a squirrel will stand almost within reach

and chatter an inquiry as to what is going on in the outside world.

There are three ridges to be crossed, so there is a good deal of the trail that is down hill. Your guide will take pleasure in pointing out The Ramparts, a steep cliff that looks to be fully five hundred feet above, and saying, " We'll be on top of that in half an hour." You doubt it, but not audibly. In half an hour you are glad you didn't contradict. The trail keeps on going up through the woods, zigzagging on side hills that slope ninety degrees and more, until the top of the ridge is reached and you are on The Ramparts. Trees obstruct what might otherwise be a splendid view, but on this first strip the panorama is reserved as a climax, and you must be content with panel pictures until then.

You will find evidence of forest fires before you have gone very far — whole acres of gray tree trunks, denuded of most of their limbs, and looking like a forest of telegraph poles. And, as if to atone for the ugliness of these blots, the sunlight that has been allowed to enter has carpeted the ground with glorious wild flowers of all colors. Lying

across the trail at intervals are trees that, dry and brittle from long standing after the fire that dried up their sap, have been blown down since the trail-menders last went this way. Your horse steps over the obstructions, or makes detours. There are numberless diversions that banish monotony. A pheasant starts across the way, a chipmunk plays along the surface of a wayside log, a deer halts on its way through the dim trees just beyond and is out of sight before there is time for a second look. There are streams to be crossed — little brooks that tumble down the mountainside in a schoolboyish rush for freedom and the larger forks of the Nisqually — some easily fordèd and others bridged with great logs and split rail planking.

Soon after crossing the third ridge, you come out into the open, ride through a grassy canyon, and look out across a green valley to Mount Rainier, so close that it seems as though you could reach out and touch it. Indian Henry's Hunting Ground is practically at the base of the peak, and from this natural park — it is a veritable garden of wild flowers in the summer — the view is one of un-

paralleled beauty. It is said that here a tribe of Klickitat Indians came to hunt, and it is easy to imagine that there was a religious significance in their selection of the spot, for the presence of the mountain inspires awe and reverence.

A camp is maintained at Indian Henry. There are tents where people sleep, and a log house from which issue odors of a wood fire, frying ham, and the like. Yes, the mountain will wait half an hour. It seems like a waste of time to eat, but —. Perhaps it will occur to you that there is an amazing amount of comfort in this camp, and you will wonder how all the supplies are conveyed. In reply to your questioning you will learn that they are "packed in on horseback" over the same trail you have just traveled, and it becomes more of a mystery than ever when you find that your meal has cost you only seventy-five cents. That is the regular charge for meals in the Park camps. If you stay over night, there will be an extra "six bits" in addition. Living in the Park is by no means expensive.

One of the most notable views of Mount

Rainier is from Reflection Lake, near the camp, where, in a little, smooth body of water, the snow-clad peak is mirrored upside down. It seems to be the picturesque culmination of a series of wonderful sights. But you have yet to climb Mount Ararat, a short distance to the south. At Indian Henry you are at considerably more than a mile above sea-level, so that an elevation of, say, 6,500 feet won't bother you, particularly in that all but about 500 is already climbed. I mean to suggest that unless a man had rheumatism he could easily reach the spot where your guide will tell you the ark landed.

The scene is stupendous. To the north the peak — overpowering, inscrutable; sparkling white against a background of blue sky, above a foreground of greensward dotted with fir and pine and cedar. To the south you look down into the canyon of the Kautz River, which, from this point fully two thousand feet above, resembles nothing so much as a piece of white cotton thread laid along a strip of green velvet.

The trip to Indian Henry and back to the inn can be made comfortably in a day, but it

deserves a week. The shorter stay, however, will fix it in your mind, so if on the following day you are scheduled for a trip to Paradise Valley, there need be no fear that it will blur your first impressions. It is fourteen miles to Paradise Valley, over one of the finest mountain roads in the world. Aside from the purely scenic features of this road it is remarkable as a triumph of engineering. From beginning to end it is twenty-five miles — a distance of only twelve miles as the crow flies — and it ascends 3,600 feet. Unlike most mountain roads, it has no undulations; the ascent is gradual but steady, and nowhere does it become steeper than a four per cent. grade. This does not mean that it is ever placid or monotonous, either. A hundred times during the day you are brought to views any one of which would make Mount Rainier National Park worth visiting.

There is a pony trail to Paradise Valley, or one may go all of the way by automobile, but the road's the thing to-day; and so the motor is the logical means of transportation. It is a matter of three or four miles before you come to the foot of the Nisqually

Glacier, a great chunk of chocolate-colored ice from the base of which rushes out the beginning of the river that bears the same name. The glacial water is milky white, and remains so for miles down its tortuous course. Now the road begins to climb a more decided incline, and the mounting is the more apparent, in that the way lies along the side of a steep hill overlooking the canyon of the Nisqually. It gets higher and higher, swinging around half-circles and climbing to higher levels directly above itself — the most perfectly zigzagged road you could imagine — until, where it seems to end in space on the brink of a beetling cliff, you reach Ricksecker Point, named after the engineer who built the road. A thousand feet below — at conservative estimate — is the Nisqually River. Beyond are the mountains. The scene is one of terrifying beauty, but even when you stop to consider that a slip over the side of the road would result in starvation before the end of the trip down, you are glad that you have arrived before a railing has been put up to remind you that this is in a park. The elemental side of nature here is its greatest fascination.

Your interest will not be confined entirely to scenery, for there are curious geological manifestations — crystallized rock, for instance, that reminds you of that of the Giant's Causeway in Ireland. And there are the marmots — big rodents that sit out on the rocks and sun themselves. They utter a shrill, plaintive whistle that you imitate without much trouble and provoke answers from them. And there is always the possibility of seeing a bear or some other wild animal.

There are cascades almost without number in the Park, and one of the prettiest is Narada Falls, where the Paradise River shoots over a cliff 185 feet high and swirls on down the narrow canyon. The road crosses a bridge just above the falls, and a two-minute walk brings you within snapshotting distance.

Then Paradise Valley. It was named from an old, unpronounceable Indian appellation which had the same significance, and there are no records to show that any one has disputed the appropriateness of the term. The Park is about a mile and a half long, a narrow, open basin that snuggles close to the base of the peak, like a tiny emerald set next to a

great diamond. The little Paradise River, newly escaped from its prison house of ice, meanders deviously through the bottom land and disappears in the forest to the west. In spring and summer time the place is carpeted with wild flowers — mountain asters, rhododendron, heather, Indian paint-brush, valerian, mountain lily, gentian; the list is too long to give in full.

It is from Paradise Valley that the ascent of Mount Rainier is usually begun. For those who have neither the strength nor inclination to climb the peak, but who wish to reach one of the glaciers, there is a foot trail leading from the valley to Paradise Glacier some hundreds of feet above. It is not too dangerous for "tenderfeet" who are unafflicted by giddiness in steep and unprotected places, and should be a part of one's experience if possible. On the way there is a splendid view of Sluiskin Falls (300 feet), and, from the spot where the trail meets the glacial moraine, a never-to-be-forgotten panorama of Paradise Valley.

You turn to the glacier, there on the mountain's side. It is very quiet up there on the

snow and ice; very much the same as it was a thousand years ago, and as it will be a thousand years hence. When the dispute as to whether the peak should be called Mount Rainier or Mount Tacoma has been forgotten this same glacier will still be moving slowly down its sides.

The top of the mountain is 8,000 feet above, but in the clear atmosphere it seems only a few hundred feet away. But as you climb up over the detritus of pumice and other volcanic rock at the edge of the glacier, the peak recedes. At the top of a long and rather steep slope you walk out on the snow and look to the south, and far across a mass of hazy blue mountains rise the two snow peaks, Mount St. Helens and Mount Adams, lesser heights of the same Cascade Range of which Mount Rainier is a part.

When you are ready to go, your guide says, "Follow me!" which you had intended to do until you saw him sit down and coast some two or three hundred feet down the side of the glacier. You hesitate — and succumb to the lure of this natural toboggan slide. It is over too soon, and you are half inclined to go

back and do it again. Toboganning, *au naturel,* in summer time is an experience worth having.

The following article by F. E. Matthes of the U. S. Geological Survey contains many valuable suggestions for those who are contemplating an ascent of the mountain:

How to Climb Mount Rainier

The ascent of Mount Rainier is ordinarily made from Paradise Park, by what is known as the Gibraltar route. This route, which is the one Gen. Hazard Stevens and P. B. Van Trump originally selected for their pioneer climb in 1870, has proven to be by far the safest and most convenient of all the routes by which the old volcano has been attacked. Besides, it is the only route readily available to the tourist public, as it starts on the south side of the mountain, which is the only side upon which permanent hotels and tourist camps are located. The country surrounding the other sides of the mountain is still in its virgin state of wildness, except for a few trails that traverse it, and is frequented only

by parties of hardy mountaineers who carry their own camping outfits.

Generally speaking, Mount Rainier is not an easy peak to climb. The great altitude of its summit (14,408 feet above sea level) and the low level of the region about its base (between 2,000 and 5,000 feet) combine to make the ascent an exceedingly long and exhausting one. Dangerously crevassed ice covers a large proportion of the mountain's flanks, while the sharp ridges between the glaciers are composed of treacherous crumbling lava and pumice. Those who have set their ambition on making the ascent will do well, therefore, to realize at the outset that there is no choice of routes, and that should one lose the beaten trail there is little or no hope of extricating one's self by another way. Several lives have been lost on the mountain, in every case by parties venturing out without the aid of guides.

There are several reasons for securing the services of a competent guide. In the first place, the route does not consist of a definitely marked path. It leads for miles over snow

fields on which footprints melt away from one day to the next. In the second place, it is necessary, in order that one may be able to return before dusk, to start out at 1 o'clock in the morning; and, as a consequence, a considerable distance must be traversed in the dark, before daybreak. No one unfamiliar with the ground should undertake to do this without a guide. Again, the rock climbing up the Cowlitz Cleaver and Gibraltar Rock is not altogether without hazard, and is not to be attempted unaided except by experienced mountaineers.

It is to be recognized, further, that most people do not know how to handle themselves on a long and difficult ascent, as mountain climbing is not with them a daily experience. They are apt to rush eagerly at the start, using up their strength before the really arduous part of the climb is reached. The guide is there not merely to show the way, but to tell the tourist how to climb, how fast to go, when to rest and to take nourishment, and to take care of him in case he is overcome with exhaustion or is taken with mountain sickness.

Finally, account must be taken of the ex-

ceeding fickleness of the weather conditions on the mountain. Only guides familiar with Rainier's many moods can presume to foretell whether the day will turn out favorable for a climb or not. What may look to the uninitiated like harmless, fleecy vapors on the summit may be the forerunners of a sudden snowstorm which no one could hope to live through. A majority of those who have perished on the mountain have been overcome by blizzardlike storms. Such storms may occur even in midsummer, and on the summit are always attended by fierce gales against which it is impossible to hold one's footing.

Reese's Camp, in Paradise Park, is the logical base from which to make the climb. It lies near the timber line, at an altitude of 5,500 feet. Accommodations may there be had by the day or week; guides may be secured, and through them such necessaries as alpenstocks, amber glasses, calks, hobnails, and actor's paint to protect the face from sunburn, etc.

The first 4,500 feet of the climb lie for the most part, though not wholly, over snow fields. These are crisp and hard before the sun

touches them, but once softened make very heavy walking; hence another reason for starting before daybreak. By sunrise one arrives at Camp Muir (10,000 feet), a saddle at the base of a narrow rock spur known as the Cowlitz Cleaver. One may make a stop here, but there is little comfort to be expected, for the place is some 4,000 feet above the highest vegetation and there is neither fuel nor water to be had. Rocks piled in low circular walls afford partial shelter from the keen winds.

The ascent of the Cowlitz Cleaver is quite taxing, being mostly over rough, angular lava blocks. By 8 o'clock, as a rule, the base of Gibraltar Rock is reached. A narrow ledge is followed along the face of the cliff, part of the way overhung by rock masses and huge icicles, and this ledge leads to the base of a narrow chute between the ice of the upper Nisqually Glacier and the body of Gibraltar. This chute offers the most serious difficulties in the ascent, and women should not attempt it with skirts. Bloomers are here a necessity. Ropes are usually suspended from the cliffs, whereby one may assist himself upward. It

is wise to move one at a time, as there is ever danger of the persons above starting rock débris and ice fragments that may injure those below. The ascent and descent of the chute are therefore inevitably time consuming. Ordinarily the saddle above Gibraltar (12,679 feet) is not reached until 10 o'clock.

From Gibraltar on there remains only a long snow slope to climb, but this snow slope is often exceedingly fatiguing. Huge, gaping crevasses develop in it which must be skilfully avoided by detours. Freshly fallen snow may be so deep that one plunges into it to the waist, or else the snow may have melted out into tapering spines and so-called honeycombs many feet high, among which one can not travel without considerable exertion.

The rim of the south crater is usually reached about 11 o'clock. It is always bare of snow, and shelter from the high gales may be found behind the great rock blocks on the crest. Metal cases are left here in which the tourist may inscribe the record of his ascent.

The crater is always filled with snow and may be traversed without risk; only one should be careful near the edges, as the snow

there is melted out in caverns by the steam jets which rise from beneath it in many places. Those having the strength may go on to Columbia Crest, the snow dome that constitutes the highest summit of the mountain. The return to Reese's Camp is easily made in from five to six hours.

In conclusion it may be well to say a word of caution to the overambitious. The climb is such a long one and the altitude gained so high that none but those who have previously prepared themselves by preliminary shorter climbs can hope to accomplish the feat with anything like genuine enjoyment. Altogether too many people have attempted the ascent immediately upon arrival from the city, without having permitted their hearts and lungs to become accustomed to the rarefied air of the higher altitudes, and without having toughened their muscles for the great task. As a consequence they have either come back exhausted to the verge of collapse or else they have altogether failed in the undertaking. And there is unfortunately more than one case on record of persons who have permanently

injured their health by such ill-considered proceeding.

It is wise upon arrival to spend several days — the more the better — in climbing about at lesser altitudes. A favorite try-out is an ascent of Pinnacle Peak, on the Tatoosh Range. It affords useful lessons in every kind of climbing that one may be called upon to do in conquering the main peak.

Moderation in diet and the avoidance of heavy food of any sort are precautions that cannot be too urgently recommended. One should bear in mind that he is preparing for the most heroic kind of athletic work, and that such work is impossible on the conventional diet followed by most people.

Before starting on the ascent of Mount Rainier, do not eat such articles as fried eggs, fried potatoes, hot cakes or heavy pastry. Abstain from coffee and tobacco if possible. Spirituous liquor of any kind is tabooed, except as a stimulant in case of collapse. Beef tea, lean meat, all dry breakfast foods, cocoa, sweet chocolate, crackers, hard tack, dry bread, rice, raisins, prunes, dates, and tomatoes

are in order. The simpler the diet, on the whole, the more beneficial it is likely to be. Never eat much at a sitting during the ascent, but eat often and a little at a time. These are rules well known to mountaineers. The more faithfully one complies with them the higher one's efficiency will be and the keener the enjoyment of the trip.

The northern half of Mount Rainier National Park is almost wholly without tourist conveniences, and the visitor must of necessity carry a camping outfit. Yet for those who find their greatest enjoyment in being away from the comforts demanded by the majority there is much in this section of the Park to reward a trip. Carbon Glacier, directly north of the peak, is called the most beautiful glacier on the mountain. Over the Elysian Fields, valleys in the Sluiskin Mountains, large bands of mountain goats roam free. There are lakes and lesser peaks, and the same rivers gushing from the glaciers that flow imperceptibly down all sides of the mountain. But the northern half of the Park is for the explorer rather than the sightseer.

VI.

SEQUOIA AND GENERAL GRANT NATIONAL PARKS

These parks are so nearly contiguous that they are generally mentioned and visited together. They are situated in Tulare and Fresno Counties, California, and are celebrated mainly for the groves of big trees within their borders. Sequoia is 161,597 acres in extent, while General Grant Park covers only 2,536 acres.

The tourist season is from June 15 to October 1.

How to Reach the Parks

Sequoia National Park may be reached from Visalia on the Southern Pacific and the Atchison, Topeka & Santa Fe Railroads, and Exeter on the Southern Pacific Railroad, thence by way of Visalia Electric Railway to Lemon Cove, thence 40 miles by stage or private con-

veyance to Giant Forest in the park. Auto stages leave Lemon Cove Mondays, Wednesdays and Fridays at 10 A. M.; arrive Giant Forest, Sequoia National Park (40 miles), 3 P. M.

Stages leave Giant Forest Tuesday, Thursdays, and Saturdays at 7 A. M.; arrive Lemon Cove 1 P. M.

Special trips will be made on alternate days under the same time schedule when two or more passengers are available.

Stage fares to Sequoia National Park.

Between Lemon Cove and Giant Forest, one way, $6.50; round trip, $12.

Between Three Rivers and Giant Forest, one way, $5; round trip, $10.

Children under 12 years of age, one-half fare.

Baggage allowance, 40 pounds; excess baggage, 2 cents per pound.

Express, 2 cents per pound; minimum charge, 25 cents.

General Grant National Park can be reached from Sanger, on the Southern Pacific Railway, thence by automobile stage or private conveyance, a distance of 46 miles to the park.

Stage fares to General Grant National Park.

From Sanger to General Grant National Park, $5.50.
From General Grant National Park to Sanger, $4.
Round trip, $8.
Baggage allowance, 50 pounds; excess baggage, $1.25 per 100 pounds.

Touring cars, operated by the Kings River-Hume Auto Service Co. (address, Sanger, Cal.), will leave Sanger each morning (except Sunday) at 9 a. m. and arrive at General Grant National Park at 2:30 p. m., leaving General Grant National Park at 9 a. m. and arriving in Sanger at 2 p. m.

An automobile, operated by Calvin Marple (address, Sanger, Cal.), will leave Sanger for Hume via General Grant National Park, Monday, Wednesday, and Friday of each week at 9 a. m. Leave Sanger for Hume Tuesday, Thursday, and Saturday of each week at 7 a. m. Leave Hume for Sanger via General Grant National Park daily at 7 a. m.

General Grant National Park may also be reached from Dinuba and Reedley on the Southern Pacific and Atchison, Topeka & Santa Fe Railways, but special arrangements must

be made for transportation from these points to the park.

Camps and Transportation Within the Parks

Sequoia National Park

At the Giant Forest there is a general store, telephone station, feed yard, photogragh gallery, and post-office; the name of the post-office is Giant Forest, Cal.

Walter E. Kenny, Madera, Cal., has a license to maintain a camp and to furnish meals and lodging. The authorized rates are as follows:

Authorized rates at camp of Walter E. Kenney.

Board and lodging in camp:	
One person, per day	$3.25
One person, per week	18.00
One person, four weeks	68.00
Two persons, per day, each	3.00
Two persons, per week, each	16.50
Two persons, four weeks, each	60.00
Meals without lodging:	
Breakfast and lunch, each	.75
Dinner	1.00
Lodging without meals	1.00
Baths	.35

Guests desiring extra tent room will be charged as follows;

Tent capacity of four people occupied by two, 50 cents each per day extra.

Tent capacity of two people occupied by one, 50 cents per day extra.

The Sequoia National Park Transportation Co., operates an auto stage service from Giant Forest to points of interest in the park at the following rates:

Authorized rates of Sequoia National Park Transportation Co.

Parker Group, Moro Rock, and return—	
One person	$1.00
Four or more, each	.75
Admiration Point and return—	
One person	3.00
Four or more, each	1.50
General Sherman Tree and return—	
One person	1.00
Four or more, each	.50
General Sherman Tree and Wolverton—	
One person	2.00
Four or more, each	.75

Chester Wright, Giant Forest, Cal., has a license to conduct a saddle and pack animal transportation service in the Sequoia National Park. The authorizel rates are as follows:

Authorized rates of Chester Wright for guides and horses.

Parties can hire saddle horses and pack mules at $1.50 per day each, but in all cases guide must accompany same, at $3 per day, the guide taking charge of packing and relieving tourists of responsibility for animals. All animals will be equipped with riding or pack saddles.

TRIPS IN THE PARK AND VICINITY.

To Sherman Tree and return	$2.00
To Sherman Tree, Wolverton, and return by Circle Meadow	3.00
To Moro Rock and return	2.00
To Moro Rock and return by Crescent Log and Huckleberry Meadows	2.00
To Alta and return	2.00
To Twin Lakes and return	2.50
To Admiration Point and return	3.50
To Moro Rock, Crescent Log, Huckleberry Meadows, and Wolverton, and Sherman Tree	3.50

Parties wishing to make long trips will be furnished with special rates.

FEEDING ANIMALS.

Feeding animals, hay, each, per night	$0.75
Feeding animals, hay and barley, each, per night	1.50

General Grant National Park

Mrs. Mattie Decker maintains a camp in the General Grant Park under annual license from

the Interior Department. The authorized rates are as follows:

Rates for camp accommodations in General Grant National Park.

Board and lodging:	
Per day	$2.00
Per week	14.00
Per month	50.00
Lodging, 1 night	.75
Single meal	.50
Feeding animals, hay, each, per night	.75
Feeding animals, hay and barley, each, per night	1.50

At this camp there are also telephone station, general store, feed yard, photographic gallery, and post-office; the name of the post-office is General Grant National Park, Cal.

Peter Haux, whose address is Travers, Cal., is authorized to operate a saddle, pack, and wagon transportation service in the General Grant National Park over roads and trails not suitable for automobile transportation, and his rates for such service are as follows:

Authorized rates of Peter Haux for guides and horses.

	Per day.
Two horses and wagon, including driver	$5.00
Saddle horse, fully equipped	1.50

Pack horse, fully equipped	$1.50
Pack burro, fully equipped	1.00
Guide, fully equipped	3.50

Packs on horses and mules limited to 175 pounds; on burros to 140 pounds.

In cases where guides do not accompany pack or transportation service, the parties hiring the animals will be held accountable for any loss or damage sustained by the animals or their equipment.

What to See

The streams and lakes in these parks afford splendid trout fishing, boating, and bathing. The waters are all pure and fit to drink. The forests contain the largest, oldest, tallest, and most valuable trees in the world. Aside from the giant sequoia, there are other forests of pine, fir, cedar, and many deciduous trees that are truly royal. There are many shrubs, wild flowers, ferns, and mosses of superb beauty, while frolicking wild animals and beautiful song birds are another enjoyable and attractive feature of the parks.

Within the forest of the parks, are 13 different groves of sequoia timber. The following table gives the names of the groves, the approximate area, number of trees exceeding

10 feet in diameter, and the total number of trees of all sizes:

Sequoia Groves of the Parks.

Names.	Area Acres.	Trees exceeding 10 feet in diameter.	Total number trees of all sizes.
Sequoia National Park:			
Giant Forest Grove.....	3,200	5,000	500,000
Muir Grove	2,240	3,000	350,100
Garfield Grove	1,820	2,500	300,400
Atwell Grove	850	590	2,000
Dennison Grove	480	500	1,175
Swanee River Grove....	320	129	1,000
Squirrel Creek Grove...	90	91	200
Redwood Creek Grove..	70	70	500
Salt Creek Grove.....	60	10	50
Homer Nose Grove.....	25	5	25
Lost Grove	10	9	500
Eden Grove	10	6	50
General Grant National Park:			
General Grant Grove...	235	190	10,000
Total	9,410	12,100	1,166,000

In four of the groves above mentioned certain trees within them have been named, while in all other groves they have not. The following is a list of a few of the principal trees, with their names, height, and diameter:

Height and Diameter of Principal Trees.

GIANT FOREST GROVE.

General Sherman, height, 279.9 feet; diameter, 36.5 feet.

Abraham Lincoln, height, 270 feet; diameter, 31 feet.

William McKinley, height, 291 feet; diameter, 28 feet.

MUIR GROVE.

Dalton, height, 292 feet; diameter, 27 feet.

GARFIELD GROVE.

California, height, 260 feet; diameter, 30 feet.

GENERAL GRANT GROVE.

General Grant, height, 264 feet; diameter, 35 feet.

George Washington, height, 255 feet; diameter, 29 feet.

The General Sherman Tree, the largest in the world, was discovered by James Wolverton, a hunter and trapper, on August 7, 1879, at which time he named the tree in honor of General Sherman, under whom he had served during the war. The dimensions of this tree are as follows:

Dimensions of General Sherman Tree.

	Feet.
Height	279.9
Base circumference	102.8
Base diameter	32.7

Greatest diameter at base	36.5
Circumference 6 feet above ground	86
Diameter 6 feet above ground	27.4
Diameter 100 feet above ground	17.7

The General Grant Tree was named by Mrs. Lucretia P. Baker, who was a member of the party which camped near the tree in August, 1867. This tree has a height of 264 feet and a base diameter of 35 feet.

There are many trees in some of the groves and in fact some in each of the groves that compare favorably in size to those herein given. It is to be understood that the sequoia in these groups do not grow to the exclusion of other kinds of trees, but are interspersed with other growths of coniferous species.

Although the big trees are the most distinctive features of these parks, there are many other points of interest that the traveler thither should make any effort to visit. At Twin Lakes on the northern border of Sequoia Park (reached by pony trail) is one of the most beautiful sights, and those who like to fish will be able to gratify their taste admirably. Another interesting horseback ride is to Hospital Rock, where in a prehistoric age

lived a race of people who left painted hieroglyphics which may be read, but not translated, to-day. Paradise Cave, which can be reached by wagon, has, besides beauty, the added interest of never having been fully explored. At Elk Park a herd of elk is kept.

VII

CRATER LAKE NATIONAL PARK

Like Mount Rainier National Park, this is a park of one great distinguishing feature. The 159,360 acres which comprise Crater Lake National Park embrace some of the finest scenery in the Cascade Range of southern Oregon, but the principal point of interest is Crater Lake, a body of water having an area of 20¼ square miles, which is situated in the crater of an extinct volcano.

The tourist season extends from July 1 to September 30.

How to Reach the Park

The park may be reached from Klamath Falls and Medford, on the Southern Pacific Railroad. Medford is on the main line between San Francisco and Portland—the Shasta Route, while Klamath Falls is on the Klamath Falls branch, which connects with the main line at Weed, Cal.

The Southern Pacific Co. will sell excursion tickets to Crater Lake from June 29 to September 25, inclusive. Rates may be obtained from local agents.

Section 27 of circular 2917 of the Southern Pacific Co. contains the following regulations governing stop-overs to visit Crater Lake:

All classes of tickets covering passage between Roseville or Davis, Cal., or points beyond, and Portland, Oreg., or points beyond, will be honored in direction they read any day from July 1 to September 25, 1917, and during same period of subsequent years, via Weed, Cal., to Klamath Falls or Kirk, Oreg., and from Medford, Oreg., or vice versa, without additional charge, when passengers desire to visit Crater Lake National Park, Oreg.

Between Klamath Falls or Kirk and Medford, Oreg., passengers must pay their own transportation expense. . . . (Rates will be found on page 9.)

Passengers desiring to make the side trip should so inform train conductor into Klamath Falls or Kirk or Medford, as may be. The latter will indorse tickets, "Off at Klamath Falls," or "Off at Kirk," or "Off at Medford," as may be, showing train number and date, thereafter signing his name.

Extension of limits.—On application of holder to agent at Klamath Falls on southbound tickets and to agent at Medford on northbound tickets, limits on first or second-class one-way continuous trip tickets will be extended the number of days con-

sumed in making the Crater Lake National Park trip, not to exceed 10 days. The time consumed in making Crater Lake trip will be reckoned from date of conductor's indorsement on ticket as per item 1, this section.

Baggage.—Hand baggage not to exceed 25 pounds in weight will be transported with each whole-fare passenger free of charge between Klamath Falls or Kirk and Medford. Excess baggage charges will be at rate of 2 cents per pound. Trunks or other heavy baggage will not be handled over the route shown, necessitating their transportation over Southern Pacific Co. direct.

See baggage tariff No. 3 (F. W. Hodges, agent), I. C. C. No. 7, C. R. C. No. 5, P. S. C. Or. No. 1 supplements thereto or reissues thereof, relative waiving charge for storage of baggage at specified points for passengers making Crater Lake National Park trip as above.

The Crater Lake Co. operates a daily automobile service between Medford and Crater Lake and between Klamath Falls and Crater Lake.

Automobiles leave the Hotels Medford and Nash, Medford, at 9 a. m. daily, stop for lunch at Prospect, and reach Crater Lake at 4 p. m. Returning leave Crater Lake at 9 a. m. daily, reaching Medford in time to connect with the outgoing evening trains.

Automobiles leave White Pelican Hotel, Klamath Falls, at 7:30 a. m., and arrive at Crater Lake Lodge at noon; returning, leave Crater Lake Lodge at 1 p. m., and arrive at Hotel Pelican at 6 p. m.

Automobile rates from Medford and Klamath Falls to Crater Lake.

Medford to Crater Lake and return	$15.00
One way (either direction)	8.50
Klamath Falls to Crater Lake and return	12.50
One way (either direction)	8.00
Medford to Crater Lake, thence to Klamath Falls, or vice versa	15.00

Accommodations and Transportation—Costs

The Crater Lake Company, under a concession from the Department of the Interior, operates a camp 5 miles from the lake and a hotel and camp on the rim of the lake, but every person is at liberty to provide his own means of transportation and to camp, subject to regulations.

Crater Lake Lodge, on the rim of the lake, is of stone and frame construction and contains 64 sleeping rooms, with ample bathing facilities

as well as fire protection. Tents are provided at the lodge as sleeping quarters for those who prefer them, meals being taken at the lodge.

At Anna Spring Camp, 5 miles below the rim of Crater Lake, the company maintains a camp for the accommodation of guests, a general store (with branch at Crater Lake lodge) for the sale of provisions and campers' supplies, and a livery barn.

The authorized rates are as follows:

Rates at Crater Lake Lodge.

Board and lodging (lodging in tents), one person:	
Per day	$3.25
Per week	17.50
Board and lodging, two or more persons in one tent:	
Per day, each	3.00
Per week, each	15.00
Lodging in tents:	
One person, per night	1.00
Two or more persons in one tent, per night, each	.75
Board and lodging (lodging in hotel), one person:	
Per day	3.75
Per week	20.00

Board and lodging, two or more persons in one room:	
Per day, each	$3.50
Per week, each	17.50
Lodging in hotel:	
One person, per night	1.50
Two or more persons in one room, per night, each	1.25
In hotel rooms, with hot and cold water:	
Board and lodging, one person—	
Per day	4.25
Per week	22.50
Board and lodging, two or more persons in room—	
Per day, each	4.00
Per week, each	20.00
Lodging—	
One person, per night	2.00
Two or more persons in one room, per night, each	1.75
Baths (extra)—to house guests, 25 cents; to others	.50
Fires in rooms (extra)	.25
Single meals	1.00

Rates at Anna Spring tent camp.

Board and lodging, each person:	
Per day	2.50
Per week	15.00
Meals:	
Breakfast or lunch	.50
Dinner	.75

Children under 10 years, half rates at lodge or camp.

Automobiles are allowed in the park under regulations. The Crater Lake Co., under a concession from the Department of the Interior, operates an automobile, saddle horse, and stage transportation service for the accommodation of the hotel guests and other tourists; but every person is at liberty to provide his own means of transportation and to camp, subject to regulations.

Fares for automobile and launch trips and rates for guides, horses, and rowboats are as follows:

Transportation rates.

AUTOMOBILE.

Fare between Anna Spring Camp and Crater Lake Lodge:	
One way	$0.50
Round trip	1.00
Transportation, per mile, within the park	.10
Special trips will be made when parties of four or more are made up, as follows:	
To Anna Creek Canyon, including Dewie Canyon and Garden of the Gods, 24-mile trip, for each person	2.00
To Cloud Cap, including Kerr Notch, Sentinel Rock, and Red Cloud Cliff and Pinnacles, 40-mile trip, for each person	3.00

The Sunset Drive, from Crater Lake Lodge to summit of road at Watchman, at sunset, 10-mile trip, for each person..... $1.00

HORSE.

Saddle horses, pack animals, and burros (when furnished):
- Per hour $0.50
- Per day 3.00

Service of guide, with horse:
- Per hour 1.00
- Per day 3.00

On Crater Lake.

Launch trip:
- Wizard Island and return, per person..... .50
- Around Wizard Island and Phantom Ship and return (about 15 miles), per person. 2.00
- Around the lake 2.50

Rowboats:
- Per hour ..... .50
- Per day 2.50
- With boat puller, per hour..... 1.00
- With detachable motor—
  - Per hour 1.00
  - Per day 5.00

What to See

No scenic wonder of America has quite the same fantastic interest at Crater Lake. Ages ago fire and lava belched forth from the bowels of the earth where now lies a lake of the

purest ultramarine water nearly a third of a mile deep (1996 feet). And to its beauty is added mystery, for there are neither rivers flowing into the lake, nor outlets, and yet the water remains pure and sweet. Scientists believe that subterranean rivers are responsible.

The subsiding of a volcano the size of Mount Shasta (14,380 feet) made a place for Crater Lake. It is a roughly circular body of water nearly five miles from shore to shore, and its enclosing walls of igneous rock rise from 500 to 2,000 feet above the surface of the water. Seen from any point, the lake presents a beautiful and spectacular view. The surface of the lake was 6,177 feet above sea-level in 1908. Near the west shore is Wizard Island (763 feet high), an extinct volcanic cone, which furnishes a curious example of a crater within a crater. Just off the south shore is Phantom Ship, composed of columns of rock extending 162 feet in the air, and resembling a ship.

A trip to Wizard Island by launch and a cruise around the lake should be on the program of every visitor. Following are the principal points of interest in the Park.

Name.	Distance and direction from Crater Lake Lodge. Miles.	Elevation above sea level. Feet.	Best means of reaching.	Remarks.
Llas Rock.....	8 N ...	8,046	Auto to Glacier Peak — then on foot.	Fine view. All day trip. Pretty lake.
Crater Lake	.....	6,177	.....	Beautiful scenery; good fishing.
Wizard Island ...	3½ N ...	6,940	Boat	Extinct volcano; crater in summit.
Phantom Ship	3 E	6,339	Boat	Columns of rock 162 feet high, resembling ship.
Pinnacles	15½ SE ..	....	Auto.....	Many pinnacles; fine scenery; good camping.
Anna Creek Canyon	10 S	5,000 to 6,116	Auto or wagon	500 feet wide, 500 feet deep. Creek in bottom; good scenery.
Garden of the Gods	5	6,000	Auto	Waterfall, meadows, creek in bottom; good scenery.
Union Peak	10½ SW ..	7,698	Auto and foot	Fine peak; good scenery.
Watchman Peak...	5 N ...	8,025	Auto and foot	Fine scenery.
Glacier Peak	6 N ...	8,156	Auto and foot	Fine scenery.
Garfield Peak	1 E	8,060	Foot or horseback	Fine scenery.
Scott Peak	22 E	8,938	Auto and foot	Highest point in park.
Dewey Falls	5 E	6,000	Auto road....	Beautiful falls and magnificent canyon of solid rock.

VIII

MOUNT McKINLEY, HAWAII, AND LASSEN VOLCANIC

Mount McKinley National Park was established in 1917, and its area of 2,200 square miles is second only to that of the Yellowstone. It is in the south-central part of Alaska and contains the loftiest mountain in North America—Mount McKinley, 20,300 feet. It is reached from Seattle, Washington, via the "Inside Passage" to Skagway, by rail through White Pass to Whitehorse, and thence by river steamer to Nenana from where the park is reached by pack train. It is totally undeveloped for tourist, but it offers much to the man or woman who is used to camp and saddle.

The south side of Mount McKinley, which is the stupendous climax of the Alaskan range, is nearly impassable. It is covered by glaciers of enormous bulk, and the annual snowfall in

some places reaches a depth of sixty feet. On the north side is a rolling country dotted with beautiful lakes and forests and inhabited by great herds of caribou, bighorns, moose and deer, as well as the huge Alaskan bear. This region says Stephen R. Capps,[1] "offers remarkable opportunities for the lover of wild life to study our big game animals in their natural surroundings. Not only are mountain sheep, caribou, moose and bear present in astonishing numbers, but in this area so far removed from traveled roads they are unafraid and frankly curious of man. . . . At the north edge of the park we camped for two days near a high clay bluff, to which the mountain sheep came to eat the mud and thus obtain the salts they crave. . . . Mountain sheep are usually the shyest and most cautious of animals, but here they watched me in astonished interest until I approached within a hundred feet or so of them, upon which they reluctantly left the lick. A spring only a few miles farther seems in a like way to supply the moose with mineral salts. There we saw

[1] TRAVEL, May, 1917, "Mount McKinley, a New National Park."

a group of seven or eight moose, bulls, cows and calves, that refused to take fright until we were in their very midst. . . .

"There are many valleys in the high mountains where only the most unobserving could fail to see daily large bands of mountain sheep. On many excursions into these valleys I have in a single day counted from 100 to 325 sheep without making any especial effort to locate the herds. . . . Of the big game in this district the caribou are next in abundance to the sheep and they congregate in even larger bands. As far eastward as the Nanana River we saw caribou, most of them old bulls, singly or in groups of three or four. During the summer months most of the bulls leave the cows and calves and retire into seclusion for the period during which their horns are in the velvet. . . . One day on Toklat River I came upon a herd of 190 caribou standing out upon the bare gravel bars of the river to secure what relief the wind could bring them from the insects. . . . Although watchful and cautious, they had so little fear of my approach that they only moved off slowly, so as to keep a respectful distance away from me. For the next week we daily saw

caribou by the hundreds. The climax came when, on the divide between Toklat and Stony Rivers, our two pack trains and eight men stood in the midst of a vast herd of caribou scattered over the valley floor and mountain sides on all sides of us. Immediately below us and only a couple of hundred yards away one band of over 500 animals moved slowly about. To the right and but a little farther away another band equally large was feeding, while in the distance many smaller groups were scattered. We all counted what we could of the nearest herds and estimated the numbers of those farther away, and our most conservative estimate of the number of caribou actually in sight at one time was 1,500."

Scenically, Mount McKinley National Park is beyond adequate description. Robert Sterling Yard of the National Parks Service says: "Its gigantic ice-covered bulk rises more than 17,000 feet above the eyes of the observer standing within the national park. It is ice-plated 14,000 feet below its glistening summit. It matches the Himalayas; as a spectacle Mount McKinley even excels their loftiest peaks, for the altitude of the valleys from

which the Himalayas are viewed exceeds by many thousand feet that of the plains from which the awed visitor looks up to McKinley's towering height."

Plans are under way to make this park accessible to the tourist.

Hawaii

The Hawaii National Park is in four sections aggregating 75,295 acres. Within these sections, on the islands of Hawaii and Maui, are two of the most famous active volcanoes in the world, Mauna Loa and Kilauea, and another volcano, Haleakala, now dormant for nearly 200 years. There is also a lava lake, a mass of fire 1,000 feet in diameter.

The Hawaiian volcanoes are unique of their kind. Kilauea crater has been almost continuously active for a century. Mauna Loa is the largest active volcano and mountain mass in the world, erupting about once every ten years, and has poured out more lava in the last century than any other volcano. Haleakala is 10,000 feet high, and the crater in its summit is eight miles in diameter and 3,000 feet deep. All of these volcanoes present magnificent spec-

tacles, both by day and night. The park also includes gorgeous tropical jungles and fine forests, and sandalwood, which is elsewhere extinct, grows there luxuriantly.

Lassen Volcanic

This park was established in 1916, two years after the recent eruptions began. It is in north-central California, 210 miles from San Francisco, and is 124 square miles in area. It includes the famous Lassen Peak (10,465 feet), which is the only active volcano in the United States. Cinder Cone (6,907 feet), another peak within the park, also showed some activity a few years ago. Among the other attractions are hot springs and mud geysers, lakes and trout streams, ice caves, lakes of volcanic glass, and beautiful canyons and forests.

Nearly 10,000 people a year are now visiting Lassen Volcanic National Park, although the only accommodations for tourists are to be had from owners of patented lands within the boundaries of the park. It is accessible to motorists from the California State highways and from the Southern Pacific Railroad at Redding.

Lassen is the southern terminal peak of the Cascade Range, and is one of the celebrated series of peaks including Mount Ranier and Mount Shasta (which still emit hot gases), Mount Baker, Mount St. Helens, Mount Hood, and what was once Mount Mazama (now Crater Lake). As late as 1843 Mounts Baker and St. Helens were in eruption.

Recent eruptions of Lassen Peak began on May 30, 1914, and more than 150 occurred the first year. In some of these smoke was discharged to a height of 10,000 feet. A few stones were thrown a mile high, the largest of those dropped on the rim weighing sixty tons. Devastating eruptions occurred on the evening of May 19, 1915, and the other in the afternoon three days later. Luminous fragments could be seen flying through the air and flashes of light were reflected in the clouds over the crater. Snow on the slopes was instantly converted into water, and its tremendous force, with the hot gases, swept a path ten miles long and nearly a mile wide.

There is no record of any fatalities as yet from the volcano, but those who contemplate attempting to ascend the peak should seek ad-

vice from experienced members of the United States Geological Survey.

Smaller National Parks

The Wind Cave National Park is in the Black Hills of southwestern South Dakota. It is twelve miles from Hot Springs, on the Chicago, Burlington and Quincy and the Chicago and Northwestern Railroads, and is reached by private conveyance. It is celebrated for a limestone cave whose extent can only be guessed at. It is called Wind Cave from the current of air, often very swift, that blows intermittently in and out of its mouth, varying in speed and direction in response to changing conditions of atmospheric pressure. The park's area is 10,522 acres.

The Platt National Park in southern Oklahoma was established for the conservation of its curative springs. Its extent is only 850 acres, only slightly more than that of Central Park, New York City.

Casa Grande Ruin in south-central Arizona includes but 480 acres. The ruin is an interesting one, however. The Pima Indians claim it as the home of their ancestors, and many

mounds in the neighborhood indicate that it was once one of a large group of dwellings of some importance. It was discovered by the Jesuit missionary Father Eusebio Francisco Kino at the end of the 17th century.

Sullys Hill Park is in northeastern North Dakota and contains 768 acres. It is of slight importance compared with the other national parks.

IX

MESA VERDE NATIONAL PARK

MESA VERDE NATIONAL PARK comprises 41,920 acres [1] in Montezuma Co., Colo., adjacent to the Southern Ute Indian Reservation. Here are the ruins of the habitations of a race that vanished ages ago, perhaps contemporaneous with or even antedating the monuments of ancient Egypt. In the numerous canyons of the Mesa Verde (Spanish for "green plateau") are about 300 cliff-dwellings, of which the three largest have been repaired and made to appear as near as possible to their original state.

The highest point in the park is 8,574 feet above sea level, and the months of July, August and September offer the best time for the trip thither, although the tourist season is from June 1 to September 30.

[1] About three times as large as the borough of Manhattan, New York City.

How to Reach the Park

The headquarters of the park is at Mancos, Colo., 8 miles from the park boundary. This town is on the Rio Grande Southern line, a part of the Denver and Rio Grande Railroad system, and from this point an automobile stage line is operated to and through the park. The trip to Mancos may be made by diverse routes. The tourist may procure through tickets covering rail transportation going and returning via Alamosa, Colo., or going and returning via Ridgway and Gunnison, Colo. Or the trip may be made in one direction via Alamosa, and in the other direction via Ridgway and Gunnison. A third route is in one direction via Alamosa, and in the other direction via Ridgway and Grand Junction, Colo. Through round-trip tickets to the park itself (Spruce Tree House) are only $10 higher than the railroad ticket to Mancos.

Automobiles will leave Mancos, 2 p. m.; leave Spruce Tree Camp, 8 a. m. Time consumed each direction, between Mancos and Mesa Verde National Park, three hours.

Tickets to Mancos, Colo., will be validated

for return passage by agent for Rio Grande Southern, while those sold to Mesa Verde National Park will be validated at Spruce Tree Camp, Mesa Verde National Park, or by agent for Rio Grande Southern Railroad, Mancos, Colo.

Baggage should only be checked to Mancos, Colo. The auto stage company will carry not to exceed 50 pounds free allowance. Persons having baggage in excess of 50 pounds can make special arrangements at Mancos, Colo., with the Kelly Auto Livery Co. for its transportation to Mesa Verde National Park and return.

Transportation and Camps in the Park

Parties desiring to camp within the park may obtain suitable outfits and provisions in Mancos, Cortez, or Dolores at market rates, which are reasonable. Guides may be had either at Mancos or Cortez. Mancos is preferable as a starting point for the ruins, as it is on the line of the railroad. Cortez may be reached by stage from Dolores. The two towns are about equal size.

Mrs. Oddie L. Jeep, Mancos, Colo., main-

tains a tourist camp near Spruce Tree House. Rates, 75 cents for each meal and 75 cents for bed.

The Kelly Auto Livery has a concession to transport tourists by automobile through and in the park. Autos leave Mancos on arrival of train from west, returning the following day in time for train going west; rate, $10 for the round trip. A service will also be maintained from Spruce Tree Camp to Cliff Palace and Balcony House, at $1 for the round trip; and from Spruce Tree Camp to Sun Temple, $1 for the round trip.

What to See[1]

This mysterious region is reached from Mancos, a pretty little town that nestles at the foot of the great La Plata Mountains, whose backbone and ribs are gold, silver, lead, copper, zinc and precious stones, and where men are delving into the earth by a system of shafts, cross-cuts and tunnels miles in extent. Our road passes through this beautiful Mancos Valley, whose every acre is owned and cultivated by prosperous farmers, and at a distance

[1] Quoted largely from "The Cliff Dwellings of Colorado," by S. E. Shoemaker.—*Travel*, Aug., 1912.

of eight miles from the town we reach the park line. Here is the beginning of what will be when completed the finest scenic road in all the world. Rising on our left a thousand feet or more is Lookout Point, a sentinel at the gateway of the Park. Foot by foot the road rises and gradually there is unfolded one of the most beautiful panoramas in the Southwest. At the head of Morfield Canyon we are about one-third the way up, and here the road forms a half circle around a cone-shaped hill. From one saddle in the rim rock Montezuma Valley is spread before you—a checkerboard of farms brown with ripening grain and green with orchards. At the highest point on the Mesa, 8,574 feet above sea level, we have a splendid panoramic view of the whole park. Looking west of north, over and beyond Montezuma Valley we see the Blue Mountains in Utah, 140 miles away, made famous years gone by through being the rendezvous of all the malefactors of the Southwest. Those mountains you see in the distance are the La Sals, nearly 200 miles from where we stand as the crow flies. To the right is the Uncompahgre Plateau, whose history is a long and interest-

ing one. Off here to the west is the famous McElmo Canyon, where the prettiest apples in all the world are grown. Just south of the McElmo is the Ute Mountain, said to hold some very rich treasures of gold and silver. To the south the great Mesa Verde National Park is spread out in one grand panorama. The rim rock of the south, east and west is accessible only by way of very rough trails made by Indian hunters when the park was full of game. Just at your feet you see deep scars in the evergreen face of the park. They are the great canyons in whose walls are found the dwellings that have been mute and silent for many, many moons, whose owners were as numerous in their day as many of our well-populated counties of the New England States. No one knows when this ancient people lived and flourished, but if these silent canyons could speak, what a weird and wonderful story might be revealed!

That dark, lone Sierra, eighty miles distant, is the far-famed Cariso Mountain on the Navajo Indian Reservation, whose legends outrival the stories of the Arabian Nights. Countless murders and dark deeds are attributed to

that famous old war chief of the Navajo, Black Horse, and his clan, whose summer home was on Beautiful Mountain or *Sahe He Zunc*, which you can see just off the southern slope of the Carisos. That spire of red sandstone that rises in the plains beyond the rim rock of our park is known by the white settlers as Ship Rock, to the Navajo as Sabeti, or the eagle feather, because from some points on the Cariso Mountains *Sabeti* looks much like an enormous bird resting on its wings. A legend of the Navajo is that it is the remains of the monster bird who came from far north, freighted with a human cargo of the first Navajos, or Dena people, who were driven south by the extreme cold and began the population of the great Navajo country.

As we pass along you will observe some very large ruins, a reservoir and other signs of modes and methods of existence, and we soon reach the camp near the ruin known as Spruce Tree House. I am not aware who named this ruin, yet it is said that they were the early curio hunters and that they chose the title because there was a large spruce tree growing out of one of the buildings at this village. The

walls of the buildings are of stone and bespeak for the ancient builders considerable knowledge of architecture and masonry. Each stone is dressed to fit its particular place and bound into the wall as well as and even better than some of our modern masonry. The surfaces of the walls are smooth and plumb. By actual measurement this silent city of the ancients is 216 feet long by 89 feet wide. It contains 114 rooms and eight ceremonial chambers, or kivas, and the number of inhabitants is supposed to have been between three and four hundred.

These builders must have had a knowledge of close measure. Here are eight kivas, round as a wheel, all alike in size, the fireplaces exactly in the center of each. The two- and three-story buildings are placed in regular order, being built square, one above the other, until the last story found a roof in the ceiling of his great cave. You must make your own deductions as to the age of these old places. We have the theory of those who have been delving into this wonderful work for the past quarter of a century, yet even they hesitate to name the people or say who or what they

were, or name the number of seasons that have passed since they chanted their strange songs.

We will now pass on to Cliff Palace, which is much larger than Spruce Tree House but similar in architecture, although in some instances superior in workmanship and prepared for defense. Cliff Palace stands a thousand feet above the trail in the bottom of the canyon and some 300 feet below the rim rock. It has a commanding view of this remarkable gorge. In the opposite walls of the canyon are numerous dwellings of the same character but smaller. All of these you see from the plaza where we stand. We know nothing of the kind of government in use by these people, yet we may assume that they, like all other members of the human race, had their family troubles. As the sun gets low its rays are reflected back against the majestic wall of the canyon in masses of color that no artist can reproduce.

In the morning the horses are brought and we take the trail to Balcony House in Cliff Canyon. This beautiful example of ancient work is the last of the repaired dwellings and

is certainly a marvel of ancient masonry. Ensconced high in the wall a thousand feet or more above the wash in the canyon is the picturesque fortress. A spring of pure water is in the innermost confines of the cave, and when provisioned for a siege Balcony House must have been impregnable Its defenders could view the canyon for a thousand yards in three directions—north, south and east One of the most remarkable features of this dwelling, as well as the others we have visited, is that the stone used in its construction must have been brought from a distance, as no signs of a quarry exist near by and the slab-like stones that appear in the several structures are not found nearer than a mile From the well-chosen location of Balcony House, as regards the convenience of water, wood and the nearby fields, we may presume that in this place one of the strong clans ruled and resided. Here the walls of the canyon are abrupt and seemingly but a single trail breaks the rim rock for miles, and that trail leads to the foot of Balcony House, which is entered by a ladder and a series of steps. As the sun rises above the Mesa the canyon walls glow with their many colors, and

the cliff-dwellings are seen here, there and everywhere, all within a frame of green and gold.

As we contemplate these silent ruins it is hard to believe that at one time they resounded with the hum of industry, the laughter of children, the droning of priests or the strident cry of sentinels calling the warriors to battle. The dwellers in these abandoned communities have left no written records, but the shape of the structure and the relics that have been dug from the débris of centuries give some idea of how the people lived and moved and had their being. The main houses were built on the front of a ledge close to its edge, and back of this was an open space that answered the purpose of a court, a street, a playground or a place for industrial pursuits, such as weaving and pottery making. At intervals along the front were towers and bastions and in the interior were kivas or secret chambers used for religious ceremonies. In every village stood storehouses to provide a supply of provisions in times of war or failure of crops.

On the level mesas above the cliffs this ancient people cultivated the soil and raised the

corn that was their chief article of food. Stalks, husks, cobs and jars of shelled corn have been discovered in most of the ruins. Corn stalks have been found embedded in the adobe of the floors, and the cobs are frequently found in places where they were used to chink the walls. Reddish-brown beans, the stems, rind and seed of a gourd-like vegetable, and walnuts have also been unearthed. The turkey was evidently an important item in the life of the cliff-dweller. There is abundant evidence that this bird was domesticated and kept in the compartments of the dwellings, and the broken bones in the refuse heaps show that many a juvenile cliff-dweller polished a drum-stick with the same relish as his prototype of the Twentieth Century. In addition to being used for food the feathers and quills of the turkey were used for ornaments and some of the bones were worked up into useful household utensils such as awls and needles.

The men probably tilled the fields, hunted game and constructed the buildings that now line the canyon walls. The women, and perhaps the children helped in the building operations, for the imprints of small hands are fre-

quently found in the plaster. The women were probably occupied with the domestic work, such as grinding corn, weaving the yucca fiber into garments and making the pottery which still exists in such abundance. Either these people were indefatigable potters or they dwelt here for many years, because pottery fragments are found over the mesa, in the valleys and in and around the cliff-dwellings.

Metals were unknown to these primitive people. They used arrows of wood and reed tipped with flint and bone points. Flint and bone were also used for spear points and for knives used in hunting and domestic work. Stone axes were used for cutting wood and in many of the dwellings are found blocks of harder stone with deep grooves resulting from the laborious sharpening of the tools. As in the case of other primitive people the corn meal was ground by pounding and rubbing between polished stones.

Notwithstanding the rude character of their implements these people were not ignorant of some of the comforts of life. Fire-places are found in most of the dwellings and matting

made of rushes covered the cold stone floors. Stiff grasses tied in the middle and cut off squarely at both ends were used for scrubbing or perhaps for hair brushes. For clothing they had tanned hides, fringed buckskin and yucca fiber cloth. Even socks of yucca fiber have been found, and the feet were further protected by sandals of yucca with insoles of corn husk or soft bark fiber. Nor were the cliff-dwellers lacking in personal adornments. Bone beads, snail shells and feathers constituted the chief ornaments of personal attire.

Little is known of the exact era of the cliff-dwellers' existence. Their cities were in ruins at the time of the coming of the Spaniards and some authorities place 1,000 years ago as the most recent date of occupation. Whatever may have been the condition of these people before they inhabited the rock houses it is evident that when enemies began to threaten them they took refuge in the cliffs and built these communal houses for purposes of defense.

Access to the lofty fortresses is obtained only by following narrow trails along the face of the cliffs, in places reduced to merely hand

and foot holds carved in the sheer precipice, and through tunnels cut in rock barely large enough to admit the entrance of the diminutive cliff-dweller. From some of the structures the rock formations which permitted entrance have caved away, leaving them isolated on high ledges and balconies in the cliffs, inaccessible and unexplored.

The Government has taken every precaution to preserve these priceless remains of a vanished race and to protect them from vandalism and spoliation. Unfortunately many of the ruins were ransacked and stripped of their most valuable contents many years prior to the enactment of the legislation for the preservation of American antiquities. The Interior Department has been actively engaged in the work of keeping these structures intact and of preventing further decay and disintegration. The tottering and crumbling walls of the larger ruins have been braced up and reenforced with steel and cement, the deep kivas and underground chambers have been excavated, cleaned out and restored, and drains, culverts and ditches have been built to carry

off the storm waters and to prevent further erosion.

Dr. J. Walter Fewkes, of the Smithsonian Institution, who has been so intimately and usefully associated with the development of the park, uncovered the wonderful Sun Temple on top of the mesa not far from Cliff Palace, in 1915, and in 1916 he unearthed and restored Far-View House, a splendid mesa pueblo having hundreds of rooms.

X

THE HOT SPRINGS OF ARKANSAS

THIS government reservation is unique among national parks for its one great attraction is its medicinal springs. The city of Hot Springs is near the center of Arkansas, 50 miles southwest of the Little Rock. In addition to the hot springs of which there are 46, there are many cold springs from which come palatable waters used both in the treatment of disease and as beverages.

The Hot Springs Reservation contains 911.63 acres, and includes Hot Springs Mountain, North Mountain, West Mountain, and Whittington Lake Park. The springs are all grouped about the base of Hot Springs Mountain, their aggregate flow being 826,308 gallons per day. The hot water is supplied to the various bathhouses, and the receipts from this source are all expended under the direction of the Secretary of the Interior in im-

proving the service and in developing and beautifying the reservation. There are more than 11 miles of well-built roads and foot-paths over the mountains.

The Government is represented at the springs by a superintendent appointed by the Secretary of the Interior. The superintendent has supervision over all general matters connected with the Government's interests, is disbursing officer, enforces the rules and regulations of the department, has charge of sanitation, hydrotherapy, the bathing of patients, the Government free bathhouse for the indigent, the instruction and supervision of bath attendants, and the determination as to their fitness for employment.

How to Reach Hot Springs

From New York and points south, Hot Springs may be reached via the Southern Railway and connections; from St. Louis and the middle west by the Missouri Pacific; and from the southwest by the Southern Pacific Railway.

The City of Hot Springs

The city of Hot Springs has extended beyond the narrow valley in which the springs are located and spread out over the open plain to the south and east. It is supplied with all the public utility services of the larger cities. There are churches of every denomination, public and private schools, hospitals and sanatoria, theaters and other places of amusement, a race track, and the State fair grounds. The resident population is about 16,000.

There are many hotels, the largest affording accommodations for 1,000 guests, and several hundred boarding houses ranging in price from $5 a week up. Cottages and apartments for light housekeeping, furnished or unfurnished, can be rented from $10 a month up. The cost of living is about the same as in average cities of like size.

List of Hotels and Rates.

CAPACITY, 500 OR MORE.

Arlington.— Capacity, 500. $4.00 to $8.00 per day; $21.00 and upward per week. Bath house in hotel. Open all the year. Joe W. Corrington, Manager.

Eastman.— Capacity, 1,000. $4.00 to $8.00 per day; $21.00 and upward per week. Bath house in hotel.

Open from January to May. John R. Bogan, Manager.

Majestic.— Capacity, 500. New, modern, fireproof. Bath house in hotel. Open all the year. Rates, $2.50 per day and up. Special weekly rates. H. A. Jones, Manager.

CAPACITY, 100 TO 200.

Milwaukee.— Capacity, 100. $12.50 to $17.50 per week. Steam heat. Modern. Hot and cold water in every room. J. P. Hickey, Proprietor.

Moody.— Capacity, 150. $12.50 to $21.00 per week. Bath house under same roof. N. M. Moody, Proprietor.

Pullman.— Capacity, 150. American plan. $12.50 to $21.00 per week. European plan, $5.00 to $15.00 per week. Open all year. Joseph Longinotti, Proprietor.

St. Charles.— Capacity, 150. $1.50 to $2.50 per day; $10.50 to $17.50 per week. Apartments for light housekeeping. Adjacent to bath house. H. Dougherty, Owner and Manager.

The Eddy.— Capacity, 100. European plan, $5.00 to $15.00 per week. Eddy Hotel Co., Proprietors.

The Marquette.—European. Capacity, 125. Elevator and all modern conveniences. Moderate rates. T. J. Pettit, formerly of Waverly, Manager.

Waukesha.— Capacity, 150. $2.00 to $3.00 per day; $12.50 to $21.00 per week. Bath house in hotel. Al. A. Reynolds, Proprietor.

Townsend Hotel.— Capacity, 150. American and European; $1.00 per day and up. New brick and stone building. Modern steam heat. Hot and cold water in every room. Chapel Street. Heart of city. J. A. Townsend, Proprietor.

CAPACITY, 50 TO 100.

Jones Apartments.— $1.00 per day and up. J. T. Jones, Proprietor.

Howard.— Capacity, 75. $2.00 and upward per week. Furnished rooms only.

Hotel Richmond.— Capacity, 100. $7.00 to $12.00 per week. Mrs. F. B. Elliston, Proprietor.

McCrary.— Capacity, 75. $7.00 to $15.00 per week.

New Hot Springs.— European plan. Bath house in hotel. G. M. Smith, Manager.

Putnam.— Capacity, 75. Rates, $7.00 to $10.00 per week. Modern. Opposite Auditorium Theater. Mrs. R. Fishback, Proprietor. J. G. Tuttle, Manager.

Rockafellow.— Capacity, 75. $2.50 to $3.50 per day; $15.00 to $21.00 per week. Bath house in hotel. E. S. Putnam, Proprietor.

Sumpter.— Capacity, 75. $5.00 to $8.00 per week.

The Goddard.— Capacity, 90. Furnished rooms. Mrs. J. W. Hutsell, Proprietor.

Knickerbocker Hotel.— Capacity, 75. Steam heat, hot and cold water in every room. New brick, strictly American. $8.00 to $10.00 per week. Mrs. E. W. Lauher, Proprietor.

CAPACITY LESS THAN 50

Cozy Inn.— Capacity, 30. $10.00 and up per week.

Chicago Stag.— Furnished rooms, steam heat, very modern.

Kemper Apartments.— Rooms, steam heat, etc. Mrs. M. M. Otto, Proprietor.

Delmar Hotel.— Steam heat and all modern conveniences. J. H. Pointer, Proprietor.

Mrs. L. Gray.— Select private board. Rates reasonable.

Home Hotel.—$6.00 to $8.00. Mrs. W. H. McCollough, Proprietor.

The Higinbotham.—$6.00 to $8.00 per week. Mrs. J. L. Higinbotham, Proprietor.

BOARDING HOUSES, FURNISHED ROOMS, ETC.

Besides the foregoing, there are 500 boarding houses and rooming houses, furnished cottages and apartments, housekeeping rooms and furnished rooms at various rates to suit all purses, and good restaurants where meals can be had from 15 cents and 25 cents up.

FOR SPECIAL TREATMENT.

St. Joseph's Infirmary.—Capacity, 250. Bath house in building. Modern brick and stone structure. Rates, $15.00 to $35.00 per week. Baths, $10.00 per course.

The climate is good throughout the year. In the earlier days Hot Springs was exclusively a summer resort, the hotels being closed from October to March. In later years, however, owing to the number who come during the winter months to escape the cold of the north, the resort is patronized throughout the year. There is no malaria.

The elevation of the city is 600 feet, and that of the surrounding hills about 1,200 feet above the level of the sea.

The Pay Bathhouses

There are 23 pay bathhouses operated under rules and regulations approved by the Secretary of the Interior. Eleven are on the reservation at the base of Hot Springs Mountain, constituting what is known as "Bathhouse Row," and 12 are located at various points in the city. Eleven are in connection with hotels, hospitals, or sanatoria. The water is the same in all, but the prices charged for the baths vary in the different houses in accordance with the equipments and accommodations furnished. The rates are fixed in each instance by the Secretary of the Interior. The charges for the services of the attendance are the same in all, and include all the necessities of the bath except furnishing towels and bath robes, laundering bath robes, rubbing mercury, and handling helpless invalids.

Any dissatisfaction relative to the administration of the baths or the treatment of patients should be brought to the attention of the superintendent, who will investigate the complaint and adjust any differences.

Scale of Rates for Baths at Different Bathhouses Receiving Water from the Hot Springs Reservation.

Bathhouse.	Single baths.	Course of 21 baths.
Arlington	$0.55	$10.00
Alhambra	.40	7.00
Buckstaff	.55	10.00
Crystal (colored)	.20	4.00
Eastman	.55	10.00
Great Northern	.35	6.00
Hale	.40	7.00
Horse Shoe	.35	7.00
Hot Springs	.45	8.00
Imperial	.55	10.00
Lamar	.45	8.00
Magnesia	.40	7.00
Majestic	.50	9.00
Maurice	.55	10.00
Moody	.45	8.00
Ozark	.35	6.00
Ozark Sanatorium	.40	7.00
Palace	.40	7.00
Park:		
Upstairs	.55	10.00
Downstairs	.50	9.00
Rector	.45	8.00
Rockafellow	.40	7.00
St. Joseph's Infirmary	.45	8.00

In addition to the foregoing, bathhouse attendants, under the rules and regulations for the government of the bathhouses receiving

water from the Hot Springs Reservation, are allowed to charge for their services not to exceed 15 cents for a single bath, $1 per week, or $3 per course of 21 baths, to be collected for the attendant by the bathhouse manager and properly accounted for by him to the attendant.

Bath tickets are redeemable for the same proportionate price for which they were sold, when presented by the original purchaser, provided that when less than seven baths have been taken on any ticket presented for redemption the bathhouse may charge the rate for single baths for the number of baths taken on said ticket.

Physicians

The only physicians who are allowed to prescribe the waters of the hot springs are those licensed practitioners of the State of Arkansas who have been examined by a Federal board of medical examiners appointed by the Secretary of the Interior. Visitors are warned that physicians who have not passed the Federal board and been registered in the superintendent's office, are not permitted to make

use of the baths in the treatment of their patients. This rule is for the protection of visitors who, if they desire the baths, should before employing a physician, procure from the superintendent of the reservation a list of the qualified practitioners.

While the baths may be taken without the advice of a physician by procuring a permit *at any of the bathhhouses receiving water from the hot springs on the reservation,* this practice is not recommended. Patients who assume to determine the nature of their ailments and to prescribe for themselves often fail to obtain the desired relief. The waters are not beneficial in all diseases and in some are harmful. It is a useless expenditure of time and money to take the baths for a disease that will not be benefited by them.

Physicians' fees are from $25 a month up, according to the treatment required.

Visitors are advised for their own protection that soliciting for hotels, boarding houses, or doctors on the trains running into Hot Springs is in violation of law, and are warned against heeding the advice of irresponsible and unknown persons.

In the interest of the public it has been found necessary to prohibit the bathing of any one stopping at a hotel or boarding house in which the solicitation of patronage for doctors is allowed. Such solicitation usually takes the form of advising the patient that the doctor to whom he has been recommended by a friend at home is out of town, but that Dr. X is as good a man and will treat him for less money. The drummer commonly poses as a greatly benefited and grateful patient of the doctor who employs him. Doctors who make use of agents to induce patients to take treatment from them usually divide their fees with the solicitors or drummers.

The moral responsibility of good citizenship demands that visitors should make known to the superintendent of the reservation any instance of soliciting for doctors, thus effectively aiding the department in eliminating an obnoxious practice, and insuring to themselves the full benefits of proper treatment at this resort.

XI

THE GRAND CANYON OF ARIZONA

THE Grand Canyon of Arizona is not a part of a national park, but of a government reservation. Its preëminence among the scenic wonders of America, however, makes it unnecessary to apologize for its inclusion in this book. Its length is 217 miles, its width 13 miles, and its greatest depth considerably more than a mile. Despite its great size, statistics can give only a very dry impression of its grandeur. It is accessible at any time of year, for the climate is moderately cool in summer and generally mild in winter.

How to Reach the Grand Canyon

The Grand Canyon is approached from both east and west by the Santa Fe. Tourists leave the transcontinental train at Williams, Ariz., for a 64-mile ride in another train to the Canyon's rim. Stopovers are allowed at Wil-

liams on all classes of tickets for a visit to the Canyon.

Accommodations and Transportation—Costs

Hotel and camp accommodations at the Grand Canyon are excellent, and suited to all pocketbooks.

El Tovar, the Santa Fe hotel at Grand Canyon, is the most luxurious. It is conducted on the American plan, with the following rates: Rooms without bath, $5.00 a day: with bath, $7.00 a day upward.

Bright Angel Camp is operated as an adjunct to El Tovar, on the European plan. Rooms in the cottage or tent are $1· to $1.50 a day, per person; meals extra at the café.

There is also a hotel at Grand View, near the Grand View Trail, 14 miles east of El Tovar; and in summer limited accommodations are provided at Bass Camp, 25 miles west of El Tovar.

Regular Trip Drives

Mohave Point.— Four and a half miles west; leave 9.30 A. M. and 2 P. M.; rate $2.00.

Hopi Point.— There are three "regular

trip" drives, El Tovar to Hopi Point, three miles west, and back. The first starts at 7 A. M.; rate, $1.50. The second leaves at 2 P. M; rate, $1.00. The third, for the sunset view, leaves at an hour timed to reach the point before sunset; rate, $1.50

Hermit Rim Road.— This drive is 8 miles west of El Tovar (16 miles round trip) — once in the forenoon and once in the afternoon. The first starts at 9.30 A. M., and reaches El Tovar returning at 1 P. M.; rate $3.00. The second starts at 2.30 P. M., and reaches El Tovar returning at about 5.30 P. M.; rate $3.00, which includes sunset view. Stops are made en route, for both drives, at Hopi, Mohave and Pima Points.

Yavapai and Grandeur Points.— This drive is three miles east of El Tovar; start 10.15 A. M.; rate, $1.00.

Grand View.— Leaving El Tovar at 10.00 A. M. and 2.00 P. M. daily, the automobile makes the round trip of 28 miles in about 3½ hours. The ride is through the tallest pines of the Tusayan Forest. Time is allowed for visiting the near-by outlooks. From here may be seen that section of the Canyon from Bright

Angel Creek, west, to Marble Canyon, on the north, including the great bend of the Colorado. On the eastern wall are Moran, Zuni, Papago, Pinal, Navaho and Comanche (Desert View) points; and the mouth of the Little Colorado River. Still further beyond is the Painted Desert, and Navaho Mountain — the latter plainly seen, though one hundred and twenty miles away. The "rim trail" to Moran Point is very interesting.

Grand View Trail enters the Canyon near Grand View Point. Near by is Grand View Hotel, under management of Mr. Berry, who also cares for visitors at his ranch. This hotel is a large frame edifice, with log cabin annex. About fifty guests can be accommodated here.

Dripping Springs (*Boucher Trail*).— This trip is made on horseback all the way, or carriage to rim and saddle horses down trail; ten miles west, start at 8.30 A. M.; rate, $4.00 each for three or more persons; for less than three persons, $5.00 extra for guide. Private parties of three or more persons, $5.00 extra for guide. Boucher Trail goes down the west side of Hermit Basin, opposite the new Hermit Trail.

Private Conveyance Rates

Private conveyances may be hired for the following trips, on terms named:

Hermit Rim Road, forenoon, one to three persons, $12.00; over three persons, $4.00 each additional.

Mohave Point, one to three persons, $8.00; more than three persons, $3.00 each additional.

Hopi Point or Yavapai Point; one to three persons, $5.00; over three persons, $1.50 each additional.

Hopi and Yavapai points (both) from one to three persons, $10.00; over three persons, $2.50 each additional.

Grand View; one to three persons, $14.00; over three persons, $4.00 each additional.

Down Bright Angel Trail

The trail here is generally open the year round. In midwinter it is liable to be closed for a day or two at the top by snow, but such blockades are not frequent. The trail reaches from the hotel seven miles to Colorado River, with a branch terminating at the top of the granite wall immediately overlooking the

river. At this latter point the stream is 1,272 feet below, while the hotel on the rim is 3,158 feet above. The trip is commonly made on horseback, accompanied by a guide.

Those wishing to reach the river leave the main trail at Indian Garden and follow the downward course of Indian Garden and Pipe creeks. Another feature of this section of the trail is the "corkscrew," a spiral pathway up an almost perpendicular wall.

Leave El Tovar at 8.30 A. M. for the river trip; return to rim 5.30 P. M.; rate $5.00 each for three or more persons; less than three persons, $5.00 extra for guide. Leave El Tovar 10.30 A. M. for trip to plateau, five miles; rate $4.00 each for three or more persons; less than three persons, $5.00 extra for guide. To plateau and river same day; rate $6.00 for each person and $5.00 extra for guide for parties of one or more; start at 8.00 A. M.

It is necessary that visitors who walk down Bright Angel Trail and desire that guide and mules be sent to meet them, be charged full price and special guide fee of $5.00. This is unavoidable, as the mules and guides are not

available for any other trip, and in addition a toll fee of $1.00 must be paid by the management for each animal, whether the entire trail trip is made or not.

Horseback Trips

There are many trips possible here for those fond of horseback riding, on bridle paths along the rim and through the pines of Tusayan Forest. Saddle horses are furnished at $4.00 a day, or $2.50 a half day. English, McLellan, Whitman or Western stock saddles furnished as requested. Side saddles not provided. The rate for special guides is $5.00 a day or $2.50 a half day. Horseback trips over any of the trails into the Canyon are permitted only when accompanied by guide. This is necessary to avoid risk in meeting trail parties and pack trains.

Camping Trips

Camping trips with pack and saddle animals, or with wagon and saddle animals, are organized, completely equipped, and placed in charge of experienced guides.

For climatic reasons it is well to arrange so that camping trips during the season from October to April are mainly confined to the inner Canyon. For the remainder of the year they may be made to include both the Canyon itself and the rim country.

Some of the many camping trips are: Hermit Trail Loop, Hermit Trail Overnight, Boucher Trail Loop, Cataract Canyon, Grand View Trail Loop, Hance-Moran-Zuni points, Desert View, Little Colorado River, Painted Desert and Hopiland. The rates vary from $10.00 to $15.00 a day for one person; $6.00 to $8.00 a day, each additional person.

Such rates specially include services of guide and camp equipment; provisions are extra. Figures quoted are approximate only, varying with the different outings.

Hermit Trail Loop is a favorite three-days trip down one trail and up another; 50 miles: start 9.00 A. M.; rate, $14.00 a day, one person; $8.00 a day extra for each additional person; provisions extra; includes guide.

On account of weather conditions camping trips from October to April should be planned

chiefly for points in the Canyon; from April to October they may be planned both in the Canyon and on the rim.

Hermit Creek Overnight Trip

A limited number now can be provided for on Hermit Trail trip, staying overnight at Hermit Creek Camp.

Start from El Tovar or Bright Angel Camp at 1.00 P. M., driving to head of trail and returning next afternoon. The round trip charge is: Fifteen dollars for each person. Private guide, $5.00 a day extra. Rates quoted include regular guide, overnight accommodations, also supper, breakfast and lunch at camp.

Bass' Camp

At the western end of the granite gorge is Bass' Trail, down to the Colorado River and up to the other side to Point Sublime and Powell's Plateau, the river being crossed by ferry. The panorama eastward from Havasupai Point takes in fifty miles of the Canyon, while westward is the table-like formation

which characterizes the lower reaches of the river.

At Bass' Camp, near the head of this trail, is a frame cabin and several tents; meals are served by advance arrangements with Mr. Bass, the proprietor. Bass' Camp is reached by team from El Tovar, a distance of about twenty-four miles.

Cataract Canyon and Havasupai Village

A visit should be made to the Havasupai Indian village in Cataract Canyon. This is an unique trip of about fifty miles, first by wagon, thirty-five miles, across a timbered plateau, then on horseback down precipitous Topocobya Trail, along the rocky floors of Tobocobya and Cataract canyons, deep in the earth, to a place of gushing springs, green fields, and enchanting water-falls. Here live the Havasupai Indians, one of the most interesting tribes in Arizona. The round trip from El Tovar is made in three days, at an expense of $15.00 a day for one person, $20.00 a day for two persons, and $25.00 a day for three persons. Each additional member of party, $5.00

Courtesy of Grand Trunk Pacific Ry.

Brule Lake and Roche Miette, Jasper Park.

a day. These rates include services of guide for parties of four or less, and expenses of guide and horse feed, but do not include board and lodging at Supai Village for members of party.

What to See

When you reach the Grand Canyon, says Agnes C. Laut,[1] you have come to the uttermost wonder of the Southwestern Wonder World. There is nothing else like it in America. There is nothing else remotely resembling it in the known world; and no one has yet been heard of who has come to the Grand Canyon and gone away disappointed. If the Grand Canyon were in Egypt or the Alps it is safe to wager it would be visited by every one of the 300,000 Americans who yearly throng continental resorts. As it is, only 30,000 people a year visit the Canyon; and a large proportion of them are foreigners.

You can "do" Grand Canyon cheaply, or you can do it extravagantly. You can go to it by driving across the Painted Desert 200 miles; or motoring in from Flagstaff — a half

1 "Through Our Unknown Southwest," by Agnes C. Laut. McBride, Nast & Co. New York. 1913.

day trip — or by train from Williams, return ticket something more than $5. Or you can take your own pack horses and ride in yourself. Or you can employ one of the well-known local trail makers and guides, like John Bass, and go off up the Canyon on a camping trip of weeks or months.

Once you reach the rim of the Canyon you can camp under your own tent roof and get your own meals. Or you may go to the big hotel. Or you may get tent quarters at the camp.

First of all, understand what the Grand Canyon is, and what it isn't. We ordinarily think of a canyon as a narrow cleft or trench in the rocks, seldom more than a few hundred feet deep and wide, and very seldom more than a few miles long. But the Grand Canyon is 217 miles long, from thirteen to twenty wide, and a straight drop a mile deep, or seven miles as the trail zig-zags down. You think of a canyon as a great rocky trench between mountains. The Grand Canyon is a colossal trench with side canyons going off laterally its full length, dozens of them to each mile, like ribs along a backbone. Ordinarily,

to climb a 7,000-foot mountain, you have to go *up*. At the Grand Canyon you come to the brink of the sage brush plain and jump off — to climb these peaks — peak after peak, you lose count of them in the mist of primrose fire and lilac light and purpling shadows — to climb these peaks you go *down*, down a sheer 7,000 feet a good deal steeper than the ordinary stair and in places quite perpendicular. In fact, if the Metropolitan Tower and the Singer Building and the Flatiron and Washington's Shaft in Washington, D. C., were piled one on top of another in a pinnacled pyramid they all would barely reach up one-seventh of the height of these massive peaks swimming in countless numbers in the primrose fire of the Canyon. So much for dimensions. Now as to time — if you have only one day, you can go in by train in the morning and out by night; and between times go to Sunrise Point or Sunset Point or — if you are a robust walker — down Bright Angel Trail to the bank of Colorado River, seven miles. If you have two days at your disposal you can drive out to Grand View — fourteen miles — and overlook the panorama of the

Canyon twenty miles in all directions. If you have more days left at your disposal, there are good trips on eerie wild trails to Dripping Springs and to Gertrude Point and to Cataract Canyon and by aerial tram across the Colorado River to the Kaibab Plateau on the other side. In fact, if you stayed at Grand Canyon a year and were not afraid of *trail-less* trips, you could find a new view, a new wonder place each day. Remember, that the Canyon itself is 217 miles long, and it has lateral canyons uncounted.

When you reach El Tovar you are told two of the first things to do are take the drives — three miles each way — to Sunrise and to Sunset Points. You may do this, or you may walk them both. By carriage the way leads through the pine woods back from the rim for three miles to each point. By walking you can keep on an excellent trail close to the rim and do each in twenty minutes; for the foot trails are barely a mile long.

You can walk down Bright Angel Trail to the river at the bottom of the Canyon; but unless your legs have a pair of very good benders under the knees you'll not be able to walk up

that trail the same day, for the way down is steep as a stair and the distance is seven miles. In that case, better spend the night at the camp known as the Indian Gardens halfway down in a beautiful water dell, or else have the regular daily party bring down the mules for you to the river. Or you can join the regular tourist party both going down and coming up. Mainly because we wanted to see the sunrise, but also because a big party on a narrow trail is always unsafe and a gabbling crowd on a beautiful trail is always agony, two of us rose early — 4 A. M. — and walked down the trail during sunrise, leaving orders for a special guide to fetch mules down for us to the river. Space forbids details of the tramp, except to say it was worth the effort, twice over worth the effort, spite of knees that sent up pangs and protests for a week.

It had rained heavily all night and the path was very slippery, but if rain brings out the colors of the Petrified Forests you can imagine what it does to sunrise in a sea of blood-red mountain peaks, lilac mist gold-shot with primrose fires! Much of the trail is at an angle of 45 degrees, but it is wide and well

shored up at the outer edge. The foliage lining the trail was dripping wet, and the sunlight struck back from each leaf in spangles of gold. An incense as of morning worship filled the air with the odor of cedars and cloves and wild nutmeg pinks and yucca bloom. There are many more birds below the Canyon rim than above it, and the dawn was filled with snatches of song from blue birds and yellow finches and water ousels, whose notes were like the tinkle of water. What looked like a tiny red hillock from the rim above is now seen to be a mighty mountain, four, five, seven thousand feet from river to peak, with walls smooth as if planed by the Artificer of all Eternity. In any other place, the gorges between these peaks would be dignified by the names of canyons. Here they are mere wings to the main stage setting of the Grand Canyon.

We reached the Indian Gardens Camp in time for breakfast, and rested an hour before going on down to the river. The trail followed a gentle descent over sand hills and rocky plateaus at first, then suddenly it began to drop in the section known as the Devil's Corkscrew. The heat became sizzling as you de-

scended, but the grandeur grew more imposing from the stupendous height and sides of the brilliantly colored gorges and masses of purpling shadows above. Then the Devil's Corkscrew fell into a sandy dell, where a tiny water-fall trickled with the sound of many waters is a great silence. A cloudburst would fill this gorge in about a jiffy; but a cloudburst is the last thing on earth you need expect in this land of scant showers and no water. Suddenly, you turn a rock angle and the yellow, muddy, turbulent flood of the Colorado swirls past you, tempestuous, noisy, sullen and dark, filling the narrow canyon with the war of rock against water. What seemed to be mere foothills far above now appear colossal peaks sheer up and down, penning the angry river between black walls. It was no longer hot. We could hear a thunder shower reverberating back in some of the valleys of the Canyon, and the rain falling between us and the red rocks was as a curtain to the scene shifting of those old earth and mountain and water gods hiding in the wings of the vast amphitheater.

And if you want a wilder, eerier trail than down Bright Angel go from Dripping Springs out to Gertrude Point. I know a great many wild mountain trails in the Rockies north and south, but I have never known one that will give more thrills from its sheer beauty and daring. You go out round the ledges of precipice after precipice, where nothing holds you back from a sheer fall 7,000 feet straight as a stone could fall, nothing but the sure-footedness of your horse, out and out, round and round peak after peak, till you are on the tip top and outer edge of one of the highest mountains in the Canyon. This is the trail of old Louis Bucher, one of the beauty-loving souls who first found his way into the center of the Canyon and built his own trail to one of its grandest haunts. Louis used to live under the arch formed by the Dripping Springs, but Louis has long since left, and the trail is falling away and is now one for a horse that can walk on air and a head that doesn't feel dizzy when looking down a straight 7,000 feet into darkness. If you like that kind of a trail, take the trip, for it is the best and wildest

view of Grand Canyon; but take two days to it and sleep at Louis' deserted camp under the Dripping Springs.

America's Pantheon [1]

The Grand Canyon of the Colorado is the Pantheon, the Valhalla of the Gods.

The silent majesty of the wonderful abyss, invisible until you stand upon the brink, takes possession of your soul, investing it with the solemnity which will pervade it when at the end your feet enter the Valley of the Shadow.

You shudder at the distant shriek of the anachronistic locomotive, while the laughter of your late companions sounds like the crackling of thorns under a pot.

Beside you men and women clasp hands as their fascinated gaze sinks deeper and deeper into the fathomless gulf. Before you is spread out an epitome of creation, a microcosm of the universe, of infinite antiquity when history began.

There are Buddhist temples and tombs of the Ptolemies antedating tradition, Moham-

[1] By A. W. Dimock, *Travel*, Nov., 1910.

medan mosques that were ancient when the barefoot Mohammed first tended his camels, forums of Pompeii and theaters of Herculaneum that existed before Vesuvius was created.

In this mighty chasm, which compares with Niagara as yards with inches, were born castles and cathedrals, columns and colosseums, Druidical altars and temples of Babylon.

Here Phidias found the Parthenon, and Cheops' architect borrowed blue-prints for the pyramid of Ghizeh.

Here are preserved the records of all religions, the symbols of every faith, and even altars to the unknown God, while within its boundaries are collected the monuments and works which made Egypt great and Greece beautiful.

The Colorist of the Canyon dipped His brush in the spectrum and with broad strokes foreran the work of artists for all time. His colors were borrowed by Giotto in Padua, Gozzoli in Florence, and Perugino in the Vatican.

Standing near the edge of the chasm I saw a topographer of the Government with his

chart spread upon a table before him, translating the wonders of Hades into terms of his theodolite. He talked of arc and azimuth, curves and contour, tablets of altitude and monuments of record. He pointed out temples of Vishnu and the destroying Siva, and explained that the erosive power of water, greater in its effect than any ascribed to the creative Brahma, had carved these and other wonders of the great gulf.

He spoke with the familiarity of long acquaintance of the Canyon, the uttermost recesses of which he was about to invade, and complied with my request that he be to me what Sibyl was to Eneas, and Virgil to Dante.

We first descended to the top of a mountain where sparks flew from the tips of our tingling fingers, each hair stood erect and fire flashed before our eyes, while a sharp report followed contact with the profane tablet which my guide had inserted in the solid rock.

Assured that we were on Mt. Olympus, I pointed out fragments of thunderbolts that surrounded us, but my iconoclastic companion talked of peculiar conditions of insulation, of

atmospheric disturbances and a not unusual electric storm and suggested that with proper conductors, currents of dynamic value might be obtained. I charged him with sacrilege and reminded him of the fate of Prometheus. He replied that he represented the Government of the United States whose livery he wore and that its acts must not be questioned by other powers, human or superhuman.

We visited a temple which my Virgil told me had been duplicated in every essential of terrace and statue and dedicated to Mohammed, in Boro Budar, Central Java, and from its entrance he pointed out the model of the town erected by the Jains to commemorate the defeat of that same Mohammed.

The shadows of the Crescent and the Cross alike fell about us as we gazed upon mosques and tabernacles, upon pagan temples and churches of the Christ, upon the tomb of Absalom and the Chaldean Birs Nimroud of Nebuchadnezzar, upon the temple of Diana of the Ephesians and its Babylonian predecessor of Bel Nippur with its forty centuries of added antiquity.

He showed me cromlechs of Britain and

Peru, pagodas of Tanjore and Maulmain, temples of Pekin and Syracuse, tombs of Nanking and Thebes, as well as the model from which Pythias constructed the prototype of all sepulchres, the tomb of Mausolus at Halicarnassus.

We zigzagged down Jacob's ladders on the face of precipices and at every turn gazed into abysses that seemed bottomless. We passed the habitations of cliff-dwellers, whose long history ended before ours began, and monoliths which might have served as the very gates of hell.

As we continued our inverted climb, the walls above contracted and grew vertical, and the sky receded. A great rock came thundering down beside us, but my Sibyl smiled when I spoke of Sysyphus, and called my attention to the hanging gardens of Babylon on a cliff opposite, to the fossils in a nearby rock and the geological system to which they belonged.

I followed my guide in silence through twisting labyrinths, narrow gorges, long ravines that grew deep as we traveled them, between walls crowned with battlements and turrets above, and enclosing caverns and cata-

combs beneath. As the daylight faded, the slowly unfolding panorama of the rocks became indistinct and dreamlike. Strange murmurs filled my ears and ghostly visions flitted past. I asked my companion what realm of spirits we had invaded, and he replied that we stood within the Archean System, earth's earliest known formation.

As we continued to descend, the shadows deepened, and there opened beneath us a black gulf from which vibrations volleyed as from the hammer of Thor. Entering, we found ourselves upon the bank of a rushing river, beside the dark waters of which we encamped to await the coming of the ferryman who would bear us to the other side.

We built a fire, for cheer, from drifted wood, and its red flames covered the rocks with fluttering shadows of ghosts and goblins, foul-faced harpies and birds of ill omen, while the wavering column of heated air, distorting all things, changed drifting tree trunks into pallid corpses, and transformed the river's steady roar into chaotic murmurs, ghostly whisperings and fearsome cries. In the eddying smoke, I saw phantoms of the past, bases

of the myths of mythology and inspirations of heroic poems. Nothing was real but the unreal. I looked with the eyes of Eneas upon the ghostly procession of Griefs, Diseases, Poverty, Hunger, and Death; upon Discord, and the avenging Furies whose heads were wreathed with serpents; upon the hundred-armed Briareus, the fifty-headed Hydra, and the fire-breathing Chimeras; upon Ixion bound to the revolving wheel, the torture of Tantalus, and Prometheus chained to the rock with his vitals eternally torn by vultures in payment for his service to humanity; until I felt that Elysium was impossible while Tartarus existed. I heard the cries of those colorless ones, of whom Dante wrote, who living without infamy and without praise, were cast out by Heaven and rejected by Hell, but I saved my sympathy for the fallen Lucifer in the magnificence of his defiance. I viewed with Dante the spirits of Homer and Horace, Socrates and Democritus, Cleopatra and Helen.

Drifting clouds reflected other and later-day faces and forms. Sterner lines added majesty to the Father of his Country; Mon-

roe gazed with puzzled expression upon a large map which he held, as if he were looking for a lost doctrine; the face of John Law was recognizable, although he was garbed as an infant, with bib and tucker, while the Erie gang floated past as cherubs resting on a big white cloud, suggesting that accounts of the ship-building and other trusts had reached Tartarus. Jefferson looked as if he were not on his way to a reception at the White House, while Ben Franklin's philosophic smile suggested that he had an invitation to dine at Newport and was amused that society found it so much easier to imitate his morals than to observe his maxims. Lincoln's tired expression may have been due to his attempts to keep up with current events at the Capitol, while the grief of Columbus as he shook his head over a badly torn map in his hand was natural in view of what must have seemed to him the mistake of his life.

A boat with a solitary oarsman touched the bank near me and my companion stepping aboard told me the ferryman was his assistant who would ferry us across. But recognizing Charon and The Styx, I pleaded unprepared-

ness for the voyage and standing upon the bank as my friend departed gazed sadly upon the melting of another soul into the infinite.

When the interminable night had worn away, the sun's first rays fell with unfamiliar light upon the pinnacles above me. It was long before I could arouse myself from that strange borderland between vision and verity. I walked upon the bank of the river made famous by Powell and upon which his own fame rests, and paid mental tribute to the spirit that placed life in the balance so freely in the cause of science. I remembered, too, the engineer Stanton who in the line of plain professional duty counted all peril in the day's work and death merely an incident thereof and who supplemented the tragedy of his trip through the Canyon in May, 1869, by his triumph in December of the same year.

As I gathered pebbles from the river's brink and flowers from crevices in the rocks, I honored the geologists who rifled the earth of its secrets, reading the pages of Nature's book of the Grand Canyon and presenting to the world the history of its creation. . . . The bridal path from the brink to the bottom of

the Grand Canyon continues to be called a trail, although worn to safety and permanence by the feet of generations of horses and mules. It is exciting to the " tenderfoot," but not perilous, and if any tourist has been lost, his fall has not been recorded nor his remains located.

Sometimes a horse hesitates over a sheer drop of two or three feet, and then comes down with a suddenness that is unpleasant to the rider who lacks experience. In climbing the zigzags there is a moment at each turn, when the head and neck of the animal hangs over a precipice, while his body slowly turns upon his feet as pivots and the rider usually clings to the cantle of his saddle. Even a bad horse behaves himself on the trail and the only accident likely to happen is his going to sleep. Tourists usually insist upon having safe horses and so get those that are nearest dead. Occasionally the horse of a guide, if properly encouraged, will caper about a bit and evince a desire to jump into space. Nothing cures him so quickly as giving him the rein and the opportunity he seems to seek, which develops his caution amazingly.

The half-way house of the principal trail is on a small plateau containing a stream of water, grass and a thicket of young trees, but although surrounded by extraordinary scenery it is not often overcrowded. The journey to the top of the Canyon looked slight, but an hour of continuous climbing made small impression upon it. Distances are deceptive in Arizona and the surveyor who reported the width of the Canyon at thirteen miles is called Ananias by the traveling public which usually estimates the distance at half a mile. As we reached the top the spirits of the climbers rose and there was much shouting to others on lower levels while members of the party scurried around for a photographer to take their pictures with the party and Canyon as a background. Tastes differ and those pictures may have value in the future as heirlooms.

Things had changed since I left the world for my descent into *Avernus*.

Special trains had arrived and many people were camping in private cars in the Cocomino forest, on the border of the Canyon. There were railroad men of the kind who build roads

under the Rockies and over the Great Salt Lake, bankers bound for the Pacific Coast and a great conference, pending the conclusion of which the financial earth was expected to cease to revolve, women of the opera and the horse show, and a great political editor with a parcel of Congressmen, organizing a presidential boom in the southwest, taking statehood to the territorial politicians and irrigation to the people. The atmosphere was of Washington and Wall Street, Newport and the Waldorf-Astoria.

The remorseless river was gnawing into the earth before our race existed; it will be cutting yet deeper channels after it has been forgotten. Its work is destruction — in the Canyon. Even in arid Arizona the desert responds instantly to the rare floods with millions of tender blades of grass. On fire-swept lands of hemlock and pine, forests of beech, birch and maple spring up. With energy, intense and unflagging, Nature repairs ravages of earthquake, hurricane and tidal waves. Flowers spring alike through the snow of the avalanche and from the scarred side of the

volcano while yet the lava is red. Inspiration should be sought in the open where life abounds and not in the haunts of death.

The Canyon may well typify the tomb — the broad, glad earth the resurrection.

Nothing upon earth is better worth one visit than the Grand Canyon of Arizona — nothing is less worth two.[1]

[1] And yet Congress has not seen fit to make it a national park, while the dignity of that condition has been conferred on Sullys Hill National Park, an unimportant track of land of hardly more than a square mile.

XII

THE CANADIAN NATIONAL PARKS

THERE are now in Canada about a dozen national parks. Of this number seven may be classed as the scenic parks and include the Rocky Mountains Park, popularly known as the Banff Park, on the eastern slope of the Rockies; Yoho Park, adjoining the former in British Columbia on the western slope of the Rockies with Field as a center; Glacier Park at the summit of the Selkirks — all three traversed by the main line of the Canadian Pacific Railway; Jasper Park and Mount Robson Park adjoining one another in Alberta and British Columbia respectively in the district recently opened up by the construction of the Grand Trunk Pacific Railway through the Yellowhead Pass; Waterton Lake Park in Southern Alberta, just across the Canadian border and a favorite resort for sportsmen,

and the St. Lawrence Islands Park, which comprises twelve reservations among the Thousand Islands of the St. Lawrence.

There are also two government animal preserves in Alberta, Buffalo Park near Wainwright and Elk Island Park near Lamont.

The recently established Strathcona Park in British Columbia is, at this writing, in process of organization and not yet ready for general use.

There is, finally, the extensive and very accessible vacation territory of Eastern Ontario known as the Algonquin Park.

In addition to the above there are several historic parks scattered throughout the Eastern Provinces, in particular. The scope of this book will not permit of an extensive treatment of all of these national parks. Attention will be centered on the few which afford the greatest interest to the general tourist.

Rocky Mountains Park

This park is the oldest and one of the largest of the Dominion national parks. It originally included the whole valley between Bourgeau and Sulphur Mountains, but was

reduced in 1911 to its present size of 1,800 square miles.

The park is on the main line of the Canadian Pacific, Banff, its center, being almost fifty miles from Calgary. Banff and Laggan are the chief headquarters for the tourist. They differ widely in general character. At Banff, there is the restful, quiet scenery of a lovely mountain valley. Although there are no snow-peaks, the Rundle, Cascade and Edith mountains rise 900 feet above the winding Bow River.

Laggan is the station for the Lake Louise district, reached by tramway or a three-mile drive through the forest. The scenery here is truly alpine and the wildness and loneliness contrast sharply with the peaceful serenity of the Bow valley.

Accommodations at Banff with Rates

C. P. R. Banff Springs Hotel. American Plan. Rates from $4.00 per day up. Manager, G. H. Rawlins.

Sanitarium Hotel. European Plan. Rates from $1.00 per day up. Manager, P. N. Edmonds.

Mount Royal Hotel. American Plan. Rates from $3.00 per day up. Manager, G. M. Colladay.

Alberta Hotel. American Plan. Rates $2.00 and $2.50 per day. Proprietor, C. E. Stenton.

King Edward Hotel. American Plan. Rates $2.00 per day. Proprietor, H. G. Gordon.

Alpine Hotel (Private). European Plan. Rates from $1.00 per day up. Manager, C. E. Ross.

Homestead Hotel (Temperance). American Plan. Rates from $1.50 per day up. Proprietor, J. Locke.

AT UPPER SPRINGS

Grand View Villa. American Plan. Rates from $2.00 per day up. Proprietor, Dr. Brett; Proprietress, Miss McColl.

Hot Springs Hotel. American Plan. Rates from $2.00 per day up. Proprietor, B. Ashton.

Attractions for the Tourist at Banff

The Hot Sulphur Springs on the slopes of Sulphur Mountain are highly curative. Dressing-rooms, etc., are provided — charge, 25 cents.

Golf, tennis, mountain climbing, fishing and shooting are all possible at Banff.

There are also a buffalo park and a museum with zoological gardens.

There are numerous rides and drives to be taken from Banff. Some of these are as follows:

Carriage and Pony Tariff

Brewster Transfer Co., Limited

Lake Minnewanka and return via Banff Village, Buffalo Park and Bankhead Coal Mines; distance, 18 miles.

Carriage, team and driver; time, 4 hrs.; 2 or 3 persons ..... $ 5.00
Carriage, team and driver; full day; 2 or 3 persons 7.00
Carriage, team and driver; time, 4 hrs.; 4 or 5 persons 6.00
Carriage, team and driver; full day; 4 or 5 persons 8.00

Tunnel Mountain, Cave and Basin, and Sun Dance Canyon, *or* Loop, Cave, Basin and Sun Dance Canyon:

For either of these drives the price is:

Carriage, team and driver; time, 4 hrs.; 2 or 3 persons ..... $ 5.00
Carriage, team and driver; time, 4 hrs.; 4 or 5 persons 6.00

To Tunnel Mountain, Cave and Basin, *or* to Buffalo Park, *or* to the Loop, Cave and Basin:

Carriage, team and driver; time, 3 hrs.; 2 or 3 persons ..... $ 4.00
Carriage, team and driver; time, 3 hrs.; 4 or 5 persons 5.00

To Brewster Creek:

New Trail, 18 miles. Time required, 3 days, which includes one day in camp. Rates, including guide, cook, pack horses, saddle horses, saddles, cooking utensils:

For one person .....$15.00 per day
For two persons .....12.50 per day each
For three or more .....10.00 per day each

To Cave and Basin only:

Carriage, team and driver; time, 1 hour; 3 or more persons, each .....50 cents

To Upper Hot Springs only:

Carriage, team and driver; time, 2 hrs.; 2 or 3 persons .....$ 3.00
Carriage, team and driver; time, 2 hrs.; 4 or 5 persons, each 1.00

Saddle Ride to Observatory on Sulphur Mountain:

Distance, 12 miles; pony for round trip, 6 hours .....$ 3.00

Tunnel Mountain Pony Ride:

General pony rate, viz.: $1.00 for first hour. Each subsequent hour, 50 cents; $3.00 per day.

Additions—New Road to Mount Edith Pass:

2 or 3 persons .....$ 5.00
4 or 5 persons 6.00
Single trap, per hour 1.00

General Banff Tariff

Single traps, phaeton without driver, first hour $ 1.00
Each subsequent hour ..... .50
Two-seated carriage, team and driver, per hour 2.00
For half day (4½ hrs.), $5.00; per day (9 hrs.) 8.00
Three-seated carriage, team and driver, per hour 2.50
For half day (4½ hrs.), $6.00; per day (9 hrs.) 10.00

Special trap to station, 2 persons 1.50; 3 persons	$ 2.50
Saddle ponies, first hour	1.00
Each subsequent hour, 50 cents; per day	3.00
Bus, between station and C. P. R. Hotel, each way	.25
Trunks and heavy baggage, each way	.25

Small hand bags free.

Guides for fishing, hunting or pleasure trips into any part of the Rocky Mountains Park may be obtained at Banff. For rates and particulars address:

Brewster Transport Co., Ltd., Banff.
James Simpson, Banff.
S. J. Unwin, Banff.

Rates for all hunting and fishing trips depend entirely upon the size of the party, duration of trip, and season of the year in which trip is made, but as a guide the following is the standard rate:

$15.00 per day for one person.
25.00 per day for party of two.
10.00 per day each for party of three or more.

This includes one guide, one cook, all the necessary saddle horses, pack horses, tents, cooking utensils and provisions, and, in fact,

everything necessary for your comfort and the success of the trip with the exception of your personal effects and blankets.

Season, Climate, etc.

Banff enjoys an ideal climate both summer and winter; the heat is always tempered by the mountain air, and the nights are always cool. In winter there is much sunshine, little snow and very little cold wind, temperature seldom remains lower than 20 degrees below zero for more than two or three days.

Information for Motorists

Motorists may now enter Banff by a good road from Calgary, 85 miles, passing the Stony Indian Reservation at Morley, and proceed west for about 5 miles, road being under construction to the Windermere Valley, via Vermilion and Simpson Passes.

Use of automobiles is prohibited, except on straight road to C. P. R. Hotel and Motor Garage at Boat House, and each one must be registered at Police Barracks or Government Office.

Laggan and the Lake Louise District

Excellent accommodations may be had at the Chateau Hotel maintained by the Canadian Pacific Railway. Rates from $4.50 per day, American plan.

Points of Interest at Lake Louise

Three days' climbing and walking tour from Lake Louise.— First day: Paradise Valley, by either of routes enumerated, thence to the Valley of the Ten Peaks, by way of the Watsatch or Sentinel Passes. The night is spent in the Moraine Lake Cabin. Second day: Up the Valley of the Ten Peaks, past Wenkchemna Lake to the summit of the Wenkchemna Pass (altitude, 8,521 feet); thence into Prospectors' Valley, halting for a brief period by the Eagle's Eyrie, a peculiar rock formation. The journey is then continued upward over the Opabin Glacier and Opabin Pass (altitude, 8,450 feet). Lake O'Hara is next reached and the night spent in the hut near there. Next day Lake McArthur may be visited and the return journey made to the Chalet, via the direct trail to Lake

Louise, or by way of the Cataract Brook trail to the railway at Hector.

Motor tramway, between Lake Louise Station and Chateau Lake Louise, each way, per person, 50 cents.

Hand baggage, not exceeding two pieces for each person, free.

Additional pieces of hand baggage, each, 25 cents.

Trunks—Lake Louise Station to Lake Louise Chalet and return, each, 75 cents.

Tariff of Brewster Transfer Company

Carriage drive on Moraine Lake Road—2 or 3 persons, $5.00; 4 or 5 persons, $6.00; Tally-Ho—regular trips—per seat, $2.50. Time of two hours for lunch.

SADDLE TRIPS

Pony to Lakes Mirror and Agnes	$ 1.50
Pony to Victoria Glacier and return	2.00
Pony to Saddleback and return	2.50
Pony to Mirror Lake and Mt. St. Piran	3.00
Pony to Great Divide, 1 day	3.00
Pony to Upper Lakes and Glacier, via Grand View Trail, round trip	2.50
Pony to Saddleback and return, via Paradise Valley, 1 day	4.00
Pony to Moraine Lake and return	3.00
Pony to O'Hara Lake and return from Hector; time, 1 day	3.00
Pony to Ptarmigan Lake and return; time, 1 day.	3.00

Additional time for ponies charged at rate of 50 cents per hour. Guides furnished at $4.00 per day,

with pony. Where four or more ponies are contracted for by one person, on short trips, a guide will be furnished free; pony to be paid for at $2.00 per day.

NOTE—One day's limit is nine hours, and a half-day's limit is 4½ hours.

Yoho Park

Reached by direct line on Canadian Pacific Railway to Field. Situated on the western slope of the main chain of the Rockies and adjoining Rocky Mountains Park. Area 560 square miles.

Accommodations, Rates, Etc.

The Mount Stephen House, maintained by the C. P. R., from $4.00 per day. American plan.
Emerald Lake, seven miles from Field, from $3.50 per day.
Camps in Yoho Valley, $4.00 per day.
Field is an excellent center for hunting expeditions. See above for guides, rates, etc.

Pony Trips and Drives from Field to Emerald Lake

Field to Emerald Lake and Return—

Single carriage ($1.00 per hour).....$ 3.00
Carriage, team and driver 4.00
50 cents extra, if via Natural Bridge.
Time limit, 4½ hours.
Regular stage rate, between Field and Em-

erald Lake is $1.00 per passenger each way, or $1.25 via Natural Bridge.

General Drives from Field—

For all day—carriage, team and driver; 2 or 3 persons	$ 7.00
For all day—carriage, team and driver; 4 or 5 persons	8.00
Seating capacity of the carriage over 5 persons	8.00

Whole day to be 9 hours, and not more than 22 miles.

Carriage, team and driver—

1, 2 or 3 persons; per hour	$ 2.00
1, 2, or 3 persons; 9 hours, and not more than 22 miles, per hour	1.50
In tally-ho or coaches, regular trip, Emerald Lake and Natural Bridge, each seat	2.50

Drive along the Kicking Horse River Road to Monarch Cabins and other points of interest—

Carriage, team and driver; 1, 2, or 3 persons	$3.00
Four or more persons, each, to seating capacity of carriage	1.00

Yoho Drive to Takakkaw Falls—

Time, all day (9 hours). A popular drive.

Carriage, team and driver; 2 or 3 persons	$ 8.00
Carriage, team and driver; 4 or 5 persons	9.00

Tally-ho will run regular trips at $3.00 per seat.

Baggage to Field and Emerald Lake Chalet—

Two hand valises or suitcase, free.

Additional hand valise or suitcase	$ .25
Trunks, each	.50

Saddle horses—

To Fossil Beds and return	$ 3.00
First hour, 75 cents; subsequent hours, each	.50
Guide or packer, per day	2.50

Glacier National Park

Reached by direct line of the Canadian Pacific Railway. Station is Glacier. Situated in the heart of the Selkirks. Area 468 square miles.

Accommodations, Rates, Etc.

The Glacier House, maintained by the C. P. R., is open all the year. Rates, $4.00 to $6.00 per day, with special rates for long visits.

Mountain Climbing in Glacier Park

Asulkan Valley and Glacier to Asulkan Pass. The Asulkan Pass (alt. 7,710 ft.) may be reached by an easy one-day trip across the glacier. The view of the Dawson Range from the Pass is beautiful.

A day on the great glacier. The formation of crevasses, seracs, moulins, etc., may best be studied by spending a day with a Swiss guide on the great glacier. Perley Rock may also be visited and the great crags of Mt. Sir Donald viewed from this vantage point.

Asulkan Pass and return, via Swanzy Glacier and Lily Pass (alt. 8,228 ft.), a long, but splendid trip traversing many glaciers. The route may be reversed by making the trip via the summit of Mt. Abbot and rear slope of the Rampart.

Uto and Eagle Passes. A circuit of Eagle Peak, making the trip via the Pass between Uto Peak and Mt. Sir Donald, and the return by the Pass between Eagle Peak and Mt. Avalanche. Imposing views of the north-west ridge of Mt. Sir Donald and of the whole Beaver Valley.

Mts. Abbot and Afton (alts. 8,081 and 8,425 ft.). A delightful one-day climb, with splendid views of the Mt. Bonney Region.

Mt. Avalanche (alt. 9,381 ft.). The climb starts from the station platform, the trail to Avalanche Crest being followed. From that point easy rocks lead to the summit.

Castor and Pollux (alts. 9,108 and 9,176 ft.). The twin peaks may be climbed via Asulkan Valley and Glacier. They present no difficulty to a well-equipped party.

Mt. Grizzly (alt. 9,061 ft.). The train may be taken to Rogers Pass and from there a

short walk via Bear Creek Valley leads to the actual climb. From the summit the view northward reveals the monarch of the Selkirks, Mt. Sir Sanford (alt. 11,634 ft.), as yet unclimbed.

Swiss guides are stationed at the hotel and are available for the service of tourists for the fee of $5.00 per day. The guides provide rope, ice axes, etc., and visitors intending to climb should be equipped with stout boots, well nailed.

GLACIER PONY TARIFF

Great Glacier and return; time, 2 hours	$ 1.00
Asulkan Glacier and return; time, 4 hours	2.00
Marion Lake and return; time, 4 hours	2.00
Overlook on Mt. Abbot; time, 1 day	3.00
Summer House; time, 3 hours	1.50
Caves of Nakimu, via the Loops and Cougar Valley returning over the Baloo Pass, per person	5.00
Divided skirts or rain coats, rented at, per day	.50
Ponies, per day	3.00

Jasper Park

Situated in Northern Alberta on the line of the Grand Trunk Pacific. Although only a small part of it has been explored, the scenic attractions already discovered leave no room for doubt that it will be eventually one of

the most attractive of the Dominion parks. Its area was recently increased from 1000 square miles to 4400 square miles, making it the largest of the parks of Canada.

There is every diversity of natural feature to gratify the mountaineer or the explorer or the general tourist. It is an expanse of inspiring mountain scenery with a succession of majestic peaks which tower above a continental water shed wherein are the headwaters of five great rivers, the Saskatchewan, the Athabaska, the Thompson, the Columbia, and the Fraser. The chief charm of this new National Park lies in its primeval and pristine beauty. This is the fishing and hunting country of the Canadian Rockies *par excellence* and, for those who prefer mountaineering, the peaks of this locality exceed the Alps in their attractions.

About twenty miles from the entrance to Yellowhead Pass are valuable hot springs which possess great medicinal value. These springs are located at an altitude of 4,209 feet. In their vicinity the Grand Trunk Pacific will shortly erect a large hotel which will be known as the *Chalet Miette*.

At present the accommodations in the Park are confined to tents and a few local hotels in Jasper.

Maligne Lake, which was discovered in 1907, has the reputation of being the most beautiful lake in the Rockies. Trails throughout the Park are fast being opened up and the whole territory is being organized for the accommodation of the visitor.

For guide and rates in Jasper Park territory, fishing, hunting, camping, etc., address Donald Philips, Jasper, Alberta.

Mount Robson Park

To the Jasper Park reserve has recently been added by the government of British Columbia a large area in the Yellowhead Pass district, which will be known as Mount Robson Park. The central feature of this park is the famous Mt. Robson, the highest peak in the Canadian Rockies, and it is the intention of the Grand Trunk Pacific Railway Company to build a large hotel in this park in the near future.

Alberta Game Laws

OPEN SEASON FOR BIG GAME

	Bag limit
Mountain sheep . . . Sept. 1st to Oct 15th	—2 males only
Mountain goat. . Sept. 1st to Oct. 15th	—2 males only
Moose and deer . . Nov. 1st to Dec. 15th	—1 male only
Bear . . . . . Open all year	—None

Hunting License: Residents $2.50. Non residents $25.00. These may be procured at Banff.

British Columbia Game Laws

OPEN SEASON FOR BIG GAME

	Bag limit
Mountain sheep. . Sept. 1st to Nov. 15th	—2 males only
Mountain goat . . Sept. 1st to Dec. 15th	—3 males only
Moose . . . . . Sept. 1st to Dec. 31st	—2 males only
Caribou . . . . . Sept. 1st to Dec. 31st	—3 males only
Deer . . . . . Sept. 1st to Dec. 15th	—5 males only
Bear . . . . . Closed July 15th to Aug. 30th	—None

Hunting License: Non-residents, other than military men of the British Army and Canadian Militia in actual service in the Province, are required to secure a hunting license. For each the Fee is $100.00.

A Special License for Hunting Bear in the Spring will be issued for the sum of $25.00.

These may be procured at Field or Golden, B.C.

Buffalo Park at Wainwright

Buffalo Park is situated near Wainwright, Alberta, on the line of the Grand Trunk Pacific Railway.

It has an area of 160 square miles and besides containing the largest herd of buffalo in the world, numbering 1649 head, possesses many features of scenic interest for the tourist.

Waterton Lake Park

This park which has recently been increased to 423 square miles in area is just across the border from Glacier National Park in the United States, from which park it may readily be visited by horseback, or it may be reached from Cardston on the southern branch of the Canadian Pacific Railway. It is a noted center for big game hunting and fishing.

Algonquin Park

This extensive provincial vacation territory is the most accessible and also the most highly developed of all the Dominion parks. It is situated in eastern Ontario and has an area of some 3900 square miles.

The Grand Trunk Railway crosses the southwestern corner of the Park, which is easily reached from either Ottawa or Toronto. Rock Lake, Algonquin Park, Joe Lake, Brule

Lake and Rainy Lake are the main stations within the Park.

The territory abounds in lake and woodland, offering splendid opportunities for fishing, canoeing and camping. No hunting is allowed within the confines of the park.

Accommodations

Highland Inn—at Algonquin Park Station—first-class hotel—rates $2.50 to $3.50 per day. $16.00 to $18.00 per week. Open all year.

Hotel Algonquin—Joe Lake Station—first-class hotel—from $2.50 per day. Open June 25th to September 25th.

Nominigan Camp on Smoke Lake. Rates $2.50 per day. Reached by road from Algonquin Park Station or by canoe.

Camp Minnesing on Island Lake, reached by road from Algonquin Park Station. Particulars upon application.

Camping Facilities in Algonquin Park

All essentials for camping and complete equipment may be rented at either of the two large hotels. Canoes also rented and guides provided for fishing and camping trips. Rates upon application.

Revelstoke Park

Revelstoke Park at the Summit of Mount Revelstoke in British Columbia was created by the government in 1914. It has an area of about 95 square miles. It is at present in an undeveloped condition.

Owing to the great danger from fire both in Revelstoke Park and in Strathcona Park, both of which are not patrolled, tourists are not advised to visit these places until they are better organized.

XIII

NATIONAL PARKS IN EMBRYO

There are thirty-four National Monuments in the United States and Alaska, aggregating in area nearly two and a half million acres. National monuments differ from National parks principally in area, the object in so designating them being for the purpose of conservation. Unfortunately Congress makes little provision for their maintenance and development, and by reason of the fact that many are difficult of access, they are for the most part comparatively little visited by tourists.

They are of three kinds: (1) Historic landmarks or places of historic interest such as the Big Hole Battlefield, or the spot on Point Loma which marks the place where Cabrillo first sighted the coast of Southern California; (2) historic monuments, comprising prehistoric

structures such as Montezuma Castle, Gila Cliff Dwellings, or historic buildings, of which the Hydah Village at Old Kasaan is an illustration; and (3) natural monuments comprising a variety of objects of scientific interest such as caves, natural bridges, Muir Woods and the Grand Canyon of Arizona. The monuments are as follows:

Administered by the Department of the Interior.

Name.	State.	Date, Established.	Area.
Devils Tower.....	Wyoming ..	Sept. 24, 1906	1,152.00
El Morro.....	New Mexico.	Dec. 8, 1906	160.00
Montezuma Castle.	Arizona	do	160.00
Petrified Forest....	do	Dec. 8, 1906 July 31, 1911	25,625.00
Chaco Canyon.....	New Mexico.	Mar. 11, 1907	[1]20,629.00
Muir Woods[2].....	California...	Jan. 9, 1908	295.00
Pinnacles	do	Jan. 16, 1908	2,091.21
Natural Bridges...	Utah	Apr. 16, 1908 Sept. 25, 1909 Feb. 11, 1916	120.00 [1]2,740.00 [1]2,740.00
Lewis and Clark Cavern[2]	Montana ...	May 11, 1908 May 16, 1911	160.00 160.00
Tumacacori	Arizona	Sept. 15, 1908	10.00
Navajo	do	Mar. 20, 1909 Mar. 14, 1912	[1]600.00 360.00
Mukuntuweap	Utah	July 31, 1909	[1]15,840.00
Shoshone Cavern..	Wyoming ..	Sept. 21, 1909	210.00
Gran Quivira.....	New Mexico.	Nov. 1, 1909	[1]160.00
Sitka	Alaska	Mar. 23, 1910	[1]57.00
Rainbow Bridge...	Utah	May 30, 1910	160.00
Colorado	Colorado ...	May 24, 1911	13,883.06
Papago Saguaro...	Arizona	Jan. 31, 1914	2,050.43
Dinosaur	Utah	Oct. 4, 1915	80.00
Sieur de Monts[2]...	Maine	July 8, 1916	5,000.00
Capulin Mountain.	New Mexico.	Aug. 9, 1916	680.37

[1] Estimated area. [2] Donated to the United States.

Administered by the Department of Agriculture.

Name.	State.	Date, Established.	Area.
Gila Cliff Dwellings	New Mexico.	Nov. 16, 1907	160.00
Tonto	Arizona	Dec. 19, 1907	[1]640.00
Grand Canyon.....	do	Jan. 11, 1908	[1]806,400.00
Jewel Cave.....	So. Dakota..	Feb. 7, 1908	[1]1,280.00
Wheeler	Colorado ...	Dec. 7, 1908	300.00
Mount Olympus...	Washington..	Mar. 2, 1909	608,640.00
		Apr. 17, 1912	608,480.00
		May 11, 1915	299,370.00
Oregon Caves.....	Oregon	July 12, 1909	480.00
Devil Postpile.....	California ..	July 6, 1911	800.00
Walnut Canyon...	Arizona	Nov. 30, 1915	960.00
Bandelier	New Mexico.	Feb. 11, 1916	22,075.00
Old Kasaan	Alaska	Oct. 25, 1916	38.30

[1] Estimated area.

Administered by the War Department.

Name.	State.	Date, Established.	Area.
Big Hole Battle Field[1]	Montana ...	June 23, 1910	5
Cabrillo	California ..	Oct. 14, 1913	1

[1] Set aside by Executive order.

The Mukuntuweap National Monument

The Mukuntuweap National Monument, in southwestern Utah, conserves a canyon that for fantastic outline and brilliant and varied coloring probably equals any spot on this continent. Recent visitors have called it "the desert Yosemite;" others, "the mimic Grand Canyon." It inevitably suggests both. "You can't see it without shouting," reports one recent explorer.

The Mormons of a former generation chose

this valley for a refuge in the event of being driven from Zion, as they called Salt Lake City, and named it Little Zion. It is locally called Zion Canyon to-day. The north fork of the muddy Virgin River flows through it, and in the spring streams cascade from the lofty walls.

The canyon is a mighty cleft, as if the mountain had been violently divided to obtain a segment. The walls are inconceivably carved into domes, half domes, colonnades, and temples. One gigantic cliff suggests a battleship, and is locally called "Steamboat."

The faces of some of the walls contain thousands of square feet of plane surface, upon which the elements have sketched various figures. At one point may be seen the picture of a woman, a horse, and a pig, forming a distinct group. At another an eagle perches, true to this noble bird's instinct, high upon the cliffs. At other points crypts have been formed in the walls by the shelling off of the stone surface. Nature seems to have fashioned here a fine art gallery of stupendous proportions.

The coloring is beyond description. Glistening white is the basic color. Below this a strip

of maroon-colored sandstone has weathered into formations resembling those of the Grand Canyon. There are thousands of feet of polished white sandstone streaked with vermillion, like a Roman sash.

The canyon is more than fifteen miles long and varies from fifty feet wide in the narrows to twenty-five hundred feet wide in Zion proper. The neighborhood is rich in striking phenomena. There are natural bridges of great size and beauty. The country was settled by Mormons many years ago, and possesses much historical interest. Old-time Mormon customs obtain in the prosperous villages. Mukuntuweap may be reached by automobile and horseback from Lund, Utah.

Muir Woods

Within ten miles of the city of San Francisco, in Marin County, California, lies one of the noblest forests of primeval Redwood in America. That it stands to-day is due first to the fact that its outlet to the sea instead of to San Francisco Bay made it unprofitable to lumber in the days when redwoods grew like grain on California's hills.

The Muir Woods National Monument contains three hundred acres. Interspersed with the superb Redwood, the Sequoia sempervirens, sister to the Giant Sequoia of the Sierra, are many fine specimens of Douglas fir, Madrona, California Bay, and Mountain Oak. The forest blends into the surrounding wooded country. It is essentially typical of the redwood growth, with a rich stream-watered bottom carpeted with ferns, violets, oxalis, and azalea.

Many of the redwoods are magnificent specimens and some have extraordinary size. Cathedral Grove, and Bohemian Grove, where the famous revels of the Bohemian club were held before the club purchased its own permanent grove, are unexcelled in luxuriant beauty.

This splendid area of forest primeval was named by its donors, Mr. and Mrs. William Kent, in honor of the celebrated naturalist of the Sierra, John Muir. It is so near San Francisco that thousands are able to enjoy its cathedral aisles of noble trees.

Sieur de Monts

By proclamation of July 8, 1916, creating the Sieur de Monts National Monument, Presi-

dent Wilson extended the national park service for the first time to the Atlantic coast. The area which enjoys this honor is one of fascinating historical association as well as majestic natural beauty. It embraces more than five thousand acres of rugged mountain, directly south of Bar Harbor. In fact, its northern boundary lies within a mile of that famous resort. On the east it touches the Schoonerhead Road. On its south it approaches within a mile of Seal Harbor. It lies less than a mile northeast of Northeast Harbor. It is surrounded, in short, by a large summer population.

This area includes four lakes and no less than ten mountains. The lakes are Jordan Pond, Eagle Lake, Bubble Pond, and Sargent Mountain Pond. The Bowl lies just outside the boundary line. The mountains, several of which are widely celebrated, are Green Mountain, Dry Mountain, Picket Mountain, White Cap, Newport Mountain, Pemetic Mountain, The Tryad, Jordan Mountain, The Bubbles, and Sargent Mountain.

The lands included in the Sieur de Monts National Monument have never formed a part

of the public domain, but, through the patriotism and generosity of the former owners, known collectively as the Hancock County Trustees of Public Reservations, were presented to the United States. The trustees were represented in the matter by Mr. George B. Dorr, of Boston, who, in the creation of this national monument, attained the object of years of public-spirited endeavor.

Montezuma Castle

This remarkable relic of a prehistoric race is the principal feature of a well-preserved group of cliff dwellings in the northeastern part of Yavapai County, Arizona, known as the Montezuma Castle National Monument. The unique position and size of the ruin gives it the appearance of an ancient castle; hence its name.

The structure is about fifty feet in height by sixty feet in width, built in the form of a crescent, with the convex part against the cliff. It is five stories high, the fifth story being back under the cliff and protected by a masonry wall four feet high, so that it is not visible from the outside. The walls of the structure are

of masonry and adobe, plastered over on the inside and outside with mud.

Devils Tower

This extraordinary mass of igneous rock is one of the most conspicuous features in the Black Hills region of Wyoming.

The tower is a steep-sided shaft rising six hundred feet above a rounded ridge of sedimentary rocks, about six hundred feet high, on the west bank of the Belle Fourche River. Its nearly flat top is elliptical in outline. Its sides are strongly fluted by the great columns of igneous rock, and are nearly perpendicular, except near the top, where there is some rounding; and near the bottom, where there is considerable outward flare. The tower has been scaled in the past by means of special apparatus, but only at considerable risk.

The great columns of which the tower consists are mostly pentagonal in shape, but some are four or six sided.

Natural Bridges

The natural bridges for whose preservation this national monument in San Juan County,

Utah, was created are understood to be among the largest examples of their kind, the greatest of the three having a height of two hundred and twenty-two feet, and a thickness of sixty-five feet at the top of the arch. The arch is twenty-eight feet wide, the span two hundred and sixty-one feet, and the height of the span one hundred and fifty-seven feet. The other two bridges are a little smaller. All occur within about five miles. The whole constitutes a really imposing spectacle.

In the neighborhood are found, in addition to a couple of fine cavern springs and other interesting and scientifically valuable natural curiosities, many prehistoric ruins of cavern and cliff dwellings and two cavern springs.

The Chaco Canyon

The Chaco Canyon National Monument preserves remarkable relics of a prehistoric people once inhabiting New Mexico. Here are found numerous communal or pueblo dwellings built of stone, among which is the ruin known as Pueblo Bonito, containing, as it originally stood, twelve hundred rooms. It is the largest prehistoric ruin in the Southwest.

So difficult are they of access that little excavation has been done.

Shoshone Cavern

A few miles east of the celebrated Shoshone Dam, in Wyoming, is found the entrance to the picturesque cave to preserve which the Shoshone Cavern National Monument was created.

Some of the rooms are a hundred and fifty feet long and forty or fifty feet high, and all are remarkably encrusted with limestone crystals.

The passages through the cavern are most intricate, twisting, turning, doubling back, and descending so abruptly that ladders are often necessary.

Colorado

This area, near Grand Junction, Colorado, is similar to that of the Garden of the Gods at Colorado Springs, only much more beautiful and picturesque. With possibly two exceptions it exhibits probably as highly colored, magnificent, and impressive examples of erosion, particularly of lofty monoliths, as may be found anywhere in the West.

These monoliths are located in several tributary canyons. Some of them are of gigantic size; one over four hundred feet high is almost circular and a hundred feet in diameter at base. Some have not yet been explored.

Lewis and Clark Cavern

The feature of this national monument is a limestone cavern of great scientific interest because of its length and because of the number of large vaulted chambers it contains. It is of historic interest, also, because it overlooks for more than fifty miles the Montana trail of Lewis and Clark.

The vaults of the cavern are magnificently decorated with stalactite and stalagmite formations of great variety of size, form, and color, the equal of, if not rivaling, the similar formations in the well-known Luray caves in Virginia. The cavern has been closed on account of depredations of vandals.

The Dinosaur

The Dinosaur National Monument in Northeastern Utah was created to preserve remarkable fossil deposits of extinct reptiles of great

size. The reservation contains eighty acres of Juratrias rock.

For years prospectors and residents had been finding large bones in the neighborhood, and in 1909 Prof. Earl B. Douglass of the Carnegie Museum of Pittsburgh, under a permit from the Department of the Interior, undertook a scientific investigation. The results exceeded all expectation. Remains of many enormous animals which once inhabited what is now our Southwestern States have been unearthed in a state of fine preservation. These include complete and perfect skeletons of large dinosaurs.

The chief find was the perfect skeleton of a brontosaurus eighty-five feet long and sixteen feet high which may have weighed, when living, twenty tons.

The Papago Saguaro

Within this national monument, which lies about nine miles east of Phoenix, Arizona, and less than a dozen miles from the Apache Trail, grow splendid examples of characteristic desert flora, including many striking specimens of giant cactus (saguaro) and many other interesting species of cacti, such as the prickly pear

and cholla. There are also fine examples of the yucca. All here attain great size and perfection. The saguaro is that variety of cactus which grows in a cylindrical form to a height of thirty or thirty-five feet. There are also prehistoric pictographs upon the rocks.

Rainbow Bridge

This natural bridge is located within the Navajo Indian Reservation, near the southern boundary of Utah, and spans a canyon and small stream which drains the northwestern slopes of Navajo Mountain. It is of great scientific interest as an example of eccentric stream erosion.

Among the known extraordinary natural bridges of the world, this bridge is unique in that it is not only a symmetrical arch below but presents also a curved surface above, thus suggesting roughly a rainbow. Its height above the surface of the water is three hundred and nine feet and its span is two hundred and seventy-eight feet.

The existence of this natural wonder was first disclosed to William B. Douglass, an examiner of surveys of the General Land Office,

on August 14, 1909, by a Piute Indian called "Mike's boy," later "Jim," who was employed in connection with the survey of the natural bridges is White Canyon, Utah.

El Morro

El Morro, or Inscription Rock, in western central New Mexico, is an enormous sandstone rock rising a couple of hundred feet out of the plain and eroded in such fantastic form as to give it the appearance of a great castle. A small spring of water at the rock made it a convenient camping place for the Spanish explorers of the sixteenth, seventeenth, and eighteenth centuries, and its smooth face well adapted it to receive the inscriptions of the conquerors.

The earliest inscription is dated February 18, 1526. Historically the most important inscription is that of Juan de Oñate, a colonizer of New Mexico and the founder of the city of Santa Fe, in 1606. It was in this year that Oñate visited El Morro and carved this inscription on his return from a trip to the head of the Gulf of California. There are nineteen other Spanish inscriptions, among them that

of Don Diego de Vargas, who in 1692 reconquered the Pueblo Indians after their rebellion against Spanish authority in 1680.

Pinnacles

The spires, domes, caves, and subterranean passages of the Pinnacles National Monument in San Benito County, California, are awe-inspiring on close inspection, and are well worth a visit by tourists and lovers of natural phenomena.

The name is derived from the spirelike formations arising from six hundred to a thousand feet from the floor of the canyon, forming a landmark visible many miles in every direction. Many of the rocks can not be scaled.

A series of caves, opening one into the other, lie under each of the groups of rock. These vary greatly in size, one in particular, known as the Banquet Hall, being about a hundred feet square, with a ceiling thirty feet high.

Capulin Mountain

Capulin Mountain is a volcanic cinder cone of recent origin, six miles southwest of Folsom, N. Mex. It is the most magnificent specimen

for a considerable group of craters. Capulin has an altitude of eight thousand feet, rising fifteen hundred feet above the surrounding plain. It is almost a perfect cone.

The Petrified Forest of Arizona

The Petrified Forest of Arizona lies in the area between the Little Colorado River and the Rio Puerco, fifteen miles east of their junction. This area is of interest because of the abundance of petrified coniferous trees. It has exceptional scenic features, also.

The trees lie scattered about in great profusion; none, however, stands erect in its original place of growth, as in the Yellowstone National Park.

The trees probably at one time grew beside an inland sea; after falling they became waterlogged, and during decomposition the cell structure of the wood was entirely replaced by silica from sandstone in the surrounding land.

Sitka

This monument reservation is situated about a mile from the steamboat landing at Sitka, Alaska. Upon this ground was located formerly

the village of a warlike tribe—the Kik-Siti Indians—where the Russians under Baranoff in 1802 fought and won the "decisive battle of Alaska" against the Indians and effected the lodgment that offset the then active attempts of Great Britain to possess this part of the country. The Russian title thus acquired to the Alexander Archipelago was later transferred to the United States.

A celebrated "witch tree" of the natives and sixteen totem poles, several of which are examples of the best work of the savage genealogists of the Alaska clans, stand sentry like along the beach.

The Tumacacori

The Tumacacori National Monument in Santa Cruz County, Arizona, was created to preserve a very ancient Spanish mission ruin dating, it is thought, from the latter part of the sixteenth century. It was built by Jesuit priests from Spain and operated by them for over a century.

After the year 1769 priests belonging to the order of Franciscan Fathers took charge of the mission and repaired its crumbling walls,

maintaining peaceable possession for about sixty years, until driven out by Apache Indians.

Gran Quivira

The Gran Quivira has long been recognized as one of the most important of the earliest Spanish church or mission ruins in the Southwest. It is in Central Mexico. Near by are numerous Indian pueblo ruins, occupying an area many acres in extent, which also, with sufficient land to protect them, was reserved. The outside dimensions of the church ruin, which is in the form of a short-arm cross, are about forty-eight by one hundred and forty feet, and its walls are from four to six feet thick and from twelve to twenty feet high.

Navajo

This tract encloses three interesting and extensive prehistoric pueblos or cliff-dwelling ruins in an excellent state of preservation. These are known as the Betata Kin, the Keet Seel, and Inscription House.

Inscription House Ruin, on Navajo Creek, is regarded as extraordinary, not only because of its good state of preservation, but because of

the fact that upon the walls of its rooms are found inscriptions written in Spanish by early explorers and plainly dated 1661.

XIV

EQUIPMENT FOR THE NATIONAL PARK VISITOR

It is not with any intention of being epigrammatic that I cite as a first requisite to the proper enjoyment and appreciation of the national parks a suitable mental attitude. Go with a light heart and an open mind. Be prepared to admire, to wonder, to ponder. Leave your adjectives at home; they probably need a rest from even ordinary everyday use. Certainly few of them are ever the same after a trip through any one of the national parks.

Clothing

In addition to the clothing required in traveling to the park, a serviceable outing suit that will withstand rough usage should be carried; and a change of heavy underwear will often justify the space it occupies in one's lug-

gage. A sweater and a suitable outing hat are essential. Stout laced boots and heavy woolen socks should be taken, even if one does not expect to do any climbing. Every one who visits the national parks finds it necessary to do a certain amount of walking, and low or thin-soled shoes will be found very unsatisfactory. Calks or hob-nails are often an advantage as footwear is apt to develop slippery soles in the woods.

Riding breeches, preferably of khaki, and puttees are necessary if any horseback trips are to be made. Women who ride should remember that side saddles are a rarity in the West and provide divided skirts and leggings.

Incidentals

A good pair of field glasses is a distinct aid to the enjoyment of mountain scenery and the study of the bird and animal life.

A compact folding film camera with a liberal supply of films should by no means be omitted. Plates are too heavy, bulky and fragile to be easily carried, and the loading of plateholders presents many difficulties.

Fishing tackle may be hired, but the de-

votee of this sport will wish to provide his own.

Liquor is not sold in any of the national parks, so it is advisable for the traveler to carry a flask of brandy for medicinal purposes in case of need.

For the rest, one should use his or her own judgment, keeping in mind that the maximum of luggage often makes for the minimum of enjoyment.

XV

CONCERNING PARK REGULATIONS

For his own good and for the good of all those who are to enjoy the national parks, certain slight inhibitions are imposed on the visitor. Many of the rules and regulations are of no significance to travelers whose good breeding makes unnecessary a stronger deterrent from such peccadillos as the defacing of the natural wonders of the parks and carving initials to remind succeeding visitors that one G. D. F. or S. X. W. was among those present.

The more important rules that apply to practically all the parks are as follows:

Hunting or killing, wounding, or capturing any bird or wild animal, except dangerous animals when necessary to prevent them from destroying life or inflicting an injury, is prohibited. The outfits, including guns, traps, teams, horses, or means of transportation used

by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed in the park under other circumstances than prescribed above, will be forfeited to the United States, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation, and the actual owner thereof was not a party to such violation. Firearms will only be permitted in the park on written permission from the superintendent thereof. On arrival at the first station of the park, guard parties having firearms, traps, nets, seines, or explosives will turn them over to the sergeant in charge of the station, taking his receipt for them. They will be returned to the owners on leaving the park.

Fishing with nets, seines, traps, or by the use of drugs or explosives, or in any other way than with hook and line is prohibited. Fishing for purposes of merchandise or profit is forbidden. Fishing may be prohibited by order of the superintendent of the park in any of the waters of the park, or limited therein to any specified season of the year, until other-

wise ordered by the Secretary of the Interior. All fish less than 8 inches in length should at once be returned to the water with the least damage possible to the fish. Fish that are to be retained must be at once killed by a blow on the back of the head or by thrusting a knife or other sharp instrument into the head. No person shall catch more than 20 fish in one day. Licenses for fishing should be procured from the state fish and game warden.

The greatest care must be exercised to insure the complete extinction of all camp fires before they are abandoned. All ashes and unburned bits of wood must, when practicable, be thoroughly soaked with water. Where fires are built in the neighborhood of decayed logs, particular attention must be directed to the extinguishment of fires in the decaying mold. Fire may be extinguished where water is not available by a complete covering of earth, well packed down.

Especial care should be taken that no lighted match, cigar, or cigarette is dropped in any grass, twigs, leaves, or tree mold.

No camp will be made at a less distance than 100 feet from any traveled road. Blank-

ets, clothing, hammocks, or any other article liable to frighten teams must not be hung at a nearer distance than this to the road. The same rule applies to temporary stops, such as for feeding horses or for taking luncheon.

Many successive parties camp on the same sites during the season, and camp grounds must be thoroughly cleaned before they are abandoned. Tin cans must be flattened and, with bottles, cast-off clothing, and all other débris, must be deposited in a pit provided for the purpose. When camps are made in unusual places, where pits may not be provided, all refuse must be hidden where it will not be offensive to the eye.

The greatest care must be exercised by persons using bicycles. On meeting a team the rider must stop and stand at side of road between the bicycle and the team — the outer side of the road if on a grade or curve. In passing a team from the rear the rider should learn from the driver if his horses are liable to frighten, in which case the driver should halt and the rider dismount and walk past, keeping between the bicycle and the team.

Dogs and cats are not permitted in the park.

Drivers of vehicles of any description, when overtaken by other vehicles traveling at a faster rate of speed, shall, if requested to do so, turn out and give the latter free and unobstructed passageway.

Vehicles in passing each other must give full half of the roadway. This applies to freight outfits as well as any other.

Racing on the park roads is strictly prohibited.

Freight, baggage, and heavy camping outfits on sidehill grades throughout the park wil take the outer side of the road while being passed by passenger vehicles in either direction.

In making a temporary halt on the road fo any purpose all teams and vehicles will b pulled to one side of the road far enough t leave a free and unobstructed passageway No stops on the road for luncheon or fo camp purposes will be permitted. A team at tached to a vehicle will not be left without th custody of a person competent to control it a team detached from a vehicle will be securel tied to a tree or other fixed object before be ing left alone.

Special Park Rules

Yellowstone

It is forbidden to remove or injure the sediments or incrustations around the geysers, hot springs, or steam vents; or to deface the same by written inscriptions or otherwise; or to throw any substance into the springs or geyser vents; or to injure or disturb in any manner or to carry off any of the mineral deposits, specimens, natural curiosities, or wonders within the park.

It is forbidden to ride or drive upon any of the geyser or hot-spring formations.

No person will be allowed on any formations after sunset without a guide.

Automobiles and motorcycles are now permitted in the park. There are important rules and regulations for their use, and a copy of these should be procured from the National Parks Service, Washington, D. C.

Yosemite

The taking of rare specimens of plants, flowers, shrubs, ferns, etc., is not permitted,

but by special permission of the acting superintendent a limited quantity of common varieties may be used for the adornment of dining-room tables.

No one is allowed to throw anything into Mirror Lake, thereby causing ripples and disturbing the reflection.

Camping in the Mariposa, Merced or Tuolumne Big Tree Groves is not permitted.

Foot tourists on trails, if seated while animals are passing them, should remain quiet lest they frighten the animals and cause accidents to others. The making of short cuts on trails is prohibited because of damage to trails by so doing, and of likelihood of dislodging rocks, which in coursing down might kill or injure some one on a lower level.

No person shall ride or drive faster than a walk over any of the Government bridges within the park. Riding or driving at night except on the floor of the Yosemite Valley, is forbidden.

Motorcycles are now permitted in the park as well as automobiles, both subject to the rules and regulations of the National Park Service.

Mesa Verde

1. It is forbidden to injure or disturb, except as herein provided, any of the mineral deposits, natural curiosities, wonders, ruins, and other works and relics of prehistoric or primitive man, on Government lands within the park, or the ruins, and other works or relics of prehistoric man, on Government lands, within 5 miles of the boundaries of the park.

2. Permits for the examination of ruins, the excavation of archæological sites, and the gathering of objects of antiquity, will, upon application to the Secretary of the Interior through the superintendent of the park, be granted to accredited representatives of reputable museums, universities, colleges, or other recognized scientific or educational institutions, with a view to increasing the knowledge of such objects and aiding the general advancement of archæological science, under the conditions and restrictions contained in present or future regulations promulgated by the Secretary of the Interior.

3. Persons bearing archæological permits

from the department may be permitted to enter the ruins unaccompanied after presenting their credentials to the superintendent or other park officer. Persons without archæological permits who wish to visit and enter the ruins shall in all cases be accompanied by a park ranger, or other person, duly authorized by the superintendent.

4. The superintendent is authorized, in his discretion, to close any ruin on Government lands within the park or the 5-mile limit, to visitors, when it shall appear to him that entrance thereto would be dangerous to visitors, or might result in injury to walls or other insecure portions thereof, or during repairs.

THE END.

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